# MANUAL

OF THE

# TYPE-WRITER

BY

JOHN HARRISON

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R. N. Eby

141 Hemingford Road,

June. 1888.

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No. 2 Remington Type-writer on table with cover.

# A MANUAL

OF

# THE TYPE-WRITER.

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By JOHN HARRISON.

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With slower pen men used to write
Of old, when "letters" were "polite;"
In Anne's or in George's days
They could afford to turn a phrase
Or trim a straggling theme aright.

They knew not steam; electric light
Not yet had dazed their calmer sight!
They meted out both blame and praise
With slower pen.

*Austin Dobson.*

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LONDON:

ISAAC PITMAN & SONS, 1 AMEN CORNER,
PATERNOSTER ROW, E.C.

WYCKOFF, SEAMANS & BENEDICT,
100 GRACECHURCH STREET, E.C.

1888.

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# PREFACE.

IN the present work the writer has endeavored to formulate an easy and practical system of instruction in Type-writing. To derive the full amount of good therefrom, the student must begin at the beginning, and work steadily through, shirking nothing, but mastering each point thoroughly before proceeding to the next.

The simplicity of the Type-writer leads the careless to underrate the value of study, and so the market is flooded with so-called operators who are unworthy of the name, and who, by reason of their incompetency, bring discredit upon Type-writing in general.

A rapid and accurate operator on the Type-writer, who recognizes that it is not sufficient merely to know the position of the keys; who can spell correctly, compose grammatically, punctuate intelligently; who can add a knowledge of business to a good general education, and who is a clever shorthand writer, can be sure of employment and adequate remuneration.

It pays to learn properly. It also pays to understand the general principles of the mechanical structure of the Type-writer, so that the machine may always be kept at its best.

Anyone of ordinary intelligence can learn to operate the Type-writer, so as to derive great benefit from it, but not everyone can become an expert. As with the man who missed the train, he "ran quite fast enough, but *did not start in time.*" So with the would-be operator, let him "start in time." The young have nimble fingers.

Lady operators are in vogue at present; and having gained the position, they can hold it if they learn to be business-like.

In conclusion, the writer is not egotistical enough to believe that he has exhausted the subject. Indeed the small compass of the book would preclude that, but he trusts that his efforts will be found of assistance to those who intend to become operators.

JOHN HARRISON.

*London, February, 1888.*

# Type-writing.—Introduction.

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"'Why, see what a letter you wrote last night,' exclaims honest Joe Gargery to Pip, 'Wrote in print even! I've seen letters—ah! and from gentlefolks!—that I'll swear weren't wrote in print!'" This was in the days of "Great Expectations." The world has progressed since then, and now even gentlefolks can "write in print" by the aid of that most wonderful of modern inventions, the type-writer.

It has not come any too soon. Education has advanced, and the proportion of writers is greater than ever before; but quality and quantity are not always found in company. The age is a fast one, and the pen of the readiest writer is driven along in a vain attempt to keep pace with the work to be done. Fingers are but fingers still, and there are just as many up and down strokes in the *m's* and *w's* as ever, and we must dot our *i's* and cross our *t's*, as did those of our noble ancestors who knew how to handle the pen. And so letters and words run together and lose their identity, until they not infrequently take on strange meanings never dreamed of by the writers.

Postmen will verify the statement that undue responsibility is occasionally shifted to them by an enigmatical address having been cut from the end of a letter received and pasted on the envelope containing the reply, because the writer has been unable to decide whether his correspondent is to be found at Greenwich or Glasgow, a final doubt remaining as to whether, after all, the capital letter has not been intended for an *S* and not a *G*.

It would almost seem as if literary men were proud of cloaking their meaning in mystic symbols, or had a grudge against the compositors and proof-readers; for the bulk of manuscripts are execrably written. One has only to call to mind the samples of handwriting of great men given in facsimile in their biographies. With few exceptions how abominable they are, and how one turns instinctively to the writing in the body of the work for the meaning!

As for commercial men, they are very little better. A business letter recently received, after having been deciphered in seven different ways was finally returned to the writer, who admitted that he "could not make head or tail of it himself."

But if the type-writer merely laid claim to improving chirography, it would remain nothing more than a curiosity. Its chief claim is rapidity *plus* clearness. The pen has always been a laggard. Thought is swifter than speech, and speech than the hand. Former efforts to overcome this latter difficulty merely resulted in modifications of existing methods and instruments. Shorthand was a radical innovation, and went far toward solving the problem; and the humble lead-pencil has now developed into the self-feeding ink-pencil and fountain pen, and left the goose quill and steel pen of time-honored shape far behind.

If Necessity is the mother of Invention, the type-writer can certainly lay claim to its lawful parentage, for it was needed badly enough, centuries before it came. Now that the number of writers has increased, the demand is greater, and also the necessity. The seeming impossibility having become an actual fact, and its simplicity made apparent, the wonder is that it was not thought of earlier.

As is generally known, the type-writer is not the invention of any one mind, but is rather a development. The first patent bearing on writing by machinery dates as far back as the year 1714. Henry Mill, the inventor, lived long enough to realize that his machine was a failure; and

from the time of his death till 1867, although several attempts were made in the same direction, nothing of marked importance was accomplished. In that year, however, two printers, C. Latham Sholes and Samuel W. Soulé, of Milwaukee, Wisconsin, U.S.A., while at work on a machine for numbering the pages of blank books, had their attention called to the possibility of so constructing it that letters instead of figures could be printed. The drift of their minds was turned in this direction by a casual remark made by a Mr Glidden, who was also an inventor. Perhaps nothing would have come of it had they not, at a later period, been fired with a spirit of emulation by hearing of a type-writing machine having been invented by a Mr John Pratt, a native of Alabama, but residing at the time in England; and as a result, they finally succeeded in producing the first really practical type-writer. To attempt to trace its after development would be almost futile. The idea having taken definite shape, modifications, alterations and improvements followed rapidly. Every suggestion was weighed, put to the proof, and if good, adopted. The result is the type-writer of to-day.

The pen in some shape or form will certainly last as long as man himself, but so will the telegraph, the telephone, and the type-writer.

In this much-peopled world, and in this much-educated age, the social problem of ways and means is daily becoming more complex. Particularly is this true in the case of women. Physically they are unfitted for hard labor, and the competition in teaching, dressmaking, etc., is so keen that great difficulty is experienced in getting a living.

Here the type-writer comes in. It is especially adapted for feminine fingers. They seem made for type-writing. Type-writing involves no harder labor, and no more skill than playing the piano. To command a good salary necessitates a certain amount of business knowledge, but

to any girl of fair education this should be no hindrance. Indeed, women have reason to bless the invention of the type-writer almost more than men. Figures setting forth the number of thousands of educated ladies in the United States, who at the present time earn their living by means of the type-writer, are so startling that those unacquainted with the facts might doubt them.

From many causes it has made comparatively slow headway in England, but the past year has seen a sudden awakening to its value, and the busy click of its metal type is now no uncommon sound in our large business houses.

A certain incredulity as to its ability to perform the amount of work, and effect the saving in time claimed by its upholders, still exists in many of the more conservative minds, but, once introduced, it wins its way, and if used until its good qualities appear, it is seldom if ever abandoned

Most inventions are both under and over-rated. The type-writer has not superseded Phonography, and while there are undoubtedly a few exceptionally skilful operators who can for a time attain and maintain a speed of over 100 words a minute, the average operator probably does not exceed 40. But it is equally certain that those same operators could not write more than 15 or 20 words in the same time with the pen. Much misconception exists as to the rate of speed at which we write. Most people would be incredulous were they to be told that they probably write only fifteen, or even a less number of words per minute. But a fair test—not of what they *can* do under pressure, but of what they *actually* do - will prove that the above statement is well within the mark. Sixty-five and even seventy words per minute have been written in long-hand "for a minute" by extraordinarily rapid penmen, but the sentences have been composed of very short words, and the effort has not been sustained. Put to the same "minute test," and given equally easy sentences, extra-

ordinarily rapid type-writer operators have accomplished 120 words.

What the type-writer can be made to do in competent hands is marvelous enough without resorting to exaggeration, and it will undoubtedly take rank among the greatest of the many great discoveries and inventions of this nineteenth century.

## The Qualifications Necessary to Become a Skilful Operator.

"Can I become an operator?" is a question so frequently asked as to be almost stereotyped in its phraseology.

Undoubtedly anyone who knows the alphabet, and is not totally paralysed, can write with the type-writer, but there is a vast difference between that and becoming an operator, in the general acceptation of the term.

The question may be briefly answered in this way. If you can strike a note on the piano you can write on the type-writer, and if you have common sense you can become an operator. But when we come to the question of the qualifications necessary to make a first-class operator, it is quite different.

There are, at least, three general divisions of type-writer operators—the "commercial amanuensis," the "dictatee in a legal copying office," and the "operator-of-all-work." Any aspirant to the first must, in addition to a good general education, have had a commercial drilling. He must be able to write in shorthand at not less than the rate of 100 words per minute. He must be upright and trustworthy, absolutely uncommunicative outside of the private office, a good speller, and deft fingered.

A knowledge of book-keeping is not likely to be required of the "commercial type-writing amanuensis." His duties will, in most cases, consist in taking down in shorthand letters from dictation, and afterwards transcribing them on the machine. But it is well for him to be correct

in figures, as, in some houses he may have to "type" the invoices, and while this will usually be straightforward work, yet he should check the calculations as he proceeds. The value of his services will rest chiefly on his degree of accuracy,—accuracy in hearing, reporting, reading his notes, in judging whether the dictator has expressed his thoughts as he intended, in the manipulation of his typewriter, and in spelling.

No amanuensis, unless he is given permission so to do, has the right to alter a word, phrase or sentence of the matter as given to him by the dictator; but verbal dictation, and in fact all extemporaneous speaking, is apt to lack grammatical precision. The reporter frequently takes it upon himself to correct such inaccuracies, and gives us his idea of what the speaker meant to say. When he has overshot the mark in this manner, we are met with the familiar phrases, "I am reported as having said, etc.—what I really did say was, etc." True, letters are generally read over and signed by the dictator, and he would probably note the alteration; but, as everyone knows, the principals now and then leave early, and the letters are left to be signed "p.pro." by the next in authority. In such an event, the alteration would in all likelihood pass unnoticed on account of its very nicety. But there is still the chance that an alteration, apparently slight, but which altered the import of the letter, might escape the notice of the dictator himself, because it must be admitted that the mind will now and then mislead the eye in hurried reading. An error of calculation is often discovered by reversing the order of figures, taking the column from the top and working downwards, for the simple reason that the mind by familiarity has repeated the mistake each time.

There are, however, many so-called shorthand clerks who put inelegancies into the mouth of the most precise. Their ignorance makes the cultivated man appear a yokel. They drop a word in reporting, and have not sense enough

to supply it afterwards. "You shouldn't have gone," etc., is taken down "You shouldn't gone," and as "You shouldn't gone" it appears. "Should" does service for "would," and *vice versa*. Imagine the sentence, "Men came to his *assistant*," when, as a matter of fact, the gentleman spoken of had no "assistant," but the "assistance" came to him fortunately enough in the shape of men who saved him from drowning. Yet this is a true sentence as written by one of these bunglers. The knowledge that there are many of these dolts in active service should inspire the learner with courage to persevere, with redoubled assurance that if such as these are even tolerated, there is the greater chance for him to succeed if he brings skill, accuracy, good education, quickness and common sense into the market.

We have mentioned among other requisites the qualification of uncommunicativeness. The amanuensis must keep his ears open and his mouth closed. He must remember that he is the hand and not the head, and that what is entrusted to his brain is not his property. The diamond cutter may expend his skill on the precious stones, and yet not own them. So with the amanuensis. He is to employ his skill, but the thoughts entrusted to him belong elsewhere. It should not be necessary for the dictator to have to remind him that any particular letter is "private"—all should be considered so by him.

The type-writing dictatee in a legal office need not have the same knowledge, but, in addition to being rapid, accurate, and a good speller, he must be thoroughly conversant with legal phrases, phraseology and abbreviations. A knowledge of shorthand is not, strictly speaking a necessity, but, if he has it not, he will be a dictatee of the lowest order. If a shorthand writer, he need not be a very rapid one, unless he wishes to burst from the chrysalis state and become a reporter. The man or woman who can take down in shorthand a part of a speech from a reporter,

and then transcribe it on the type-writer is most valuable.

The "operator-of-all-work," by which we refer to those who "type" all manner of "copy" at so much per folio, must have a general fund of knowledge. None of it need be very deep, but if superficial, it must be nevertheless universal. Accuracy, good spelling, and neatness are the three essentials.

Those who have not given the matter thought would hardly believe the wide range covered by MSS. to be "typed." Indeed there is hardly any branch of business, profession or pleasure, that is not represented. The author of fiction brings his works of imagination; the scientist the result of his laborious researches, full to the brim with technical, ponderous words; the dramatist his farces, bristling with slang, and Hibernicisms never heard in Ireland; and his tragedies, loaded down with classical allusions, "thee's" and "thou's" *id genus omne;* the theological savant his learned essays, in which each sentence is burdened with Hebrew or Chaldee; the new Mining Companies their prospectuses overflowing with technicalities; and so on *ad infinitum*. The "operator-of-all-work" must be ready at a moment's notice to "tackle" words that have but little meaning to him; and the chances are that the original from which the copy is to be made is done in indifferent handwriting, which makes the hard task all the harder. There are some who seem to have the faculty for deciphering bad writing, but it is not by any means a common gift. Still it may be cultivated to a certain degree by those who are quick to catch the meaning and supply possible synonyms until they hit on the correct word that has caused all the trouble.

## Various Machines
## And Their Adaptability to Certain Work.

There are several kinds of Type-writers, some being better adapted for certain work than others.

They are known by numbers. Thus, the Number 1 Remington is built upon the original model with modifications. It is cumbersome, and it is not advisable to purchase it except where money is an important item. As a means with which to earn a living it is useless, as it has but the one set of type, all being capital letters. It is, however, a good strong machine, and will stand hard work.

The Number 2 Remington is the popular instrument. It has both capitals and small letters, figures, punctuation marks, and the following signs : $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, /, &, £, and %. It will write on paper up to eight inches wide, and of indefinite length. It is therefore suitable for commercial and general use.

Where paper of greater width is required, the Number 3 Remington is recommended. This will admit a sheet fourteen inches wide. It has four keys and eight characters in addition to those of the Number 2 machine. It is largely employed by lawyers, insurance companies, and all who require their writing done on very wide paper. Its action is slightly heavier than the smaller machines, and the extra keys are somewhat confusing to those who have accustomed themselves to the Numbers 1, 2 or 4. This is not noticed by those who have commenced to learn on it, who in turn find the absence of the extra keys misleading. As far as possible the same arrangement of keys has been adhered to in all machines.

The Number 4 Remington is built upon the style of the Number 2 machine, but has the Number 1 key-board. It is cheaper than the Number 2, but as it has only the one set of type, (capitals,) can only be recommended to

those who do their own writing, and to whom money is an object. Its action is easy, its typing clear and distinct, and it is thoroughly serviceable within the limit of its capacity, but useless where the purchaser hopes to earn a living by type-writing.

Each machine is stamped with a "Shop number," and it will be well for the purchaser to take a note of this, as in case his Type-writer should be stolen, the police could be at once notified, and the number would assist them in discovering it. The value of this has been put to the test several times. Those who contemplate buying second-hand machines should look for the number. If it has been altogether erased, it is safe to infer that at some time or other it has been stolen, and would therefore be dear at any price. The Remington Company keep as strict a record as possible of the whereabouts and history of each, and are thus enabled to trace most machines back to their origin. If the possessor of a machine wishes to exchange it for one of a newer make, and his Type-writer has no "shop number," he cannot expect any allowance to be made for it.

Considering the machines, therefore, according to their adaptability for different kinds of work, we would place them thus :—

(1) For legal work, and for work requiring very wide paper, Number 3.

(2) For all ordinary work, commercial, professional, (except legal,) and dramatic, where the paper need not be wider than eight inches, Number 2.

(3) For private use, where both small letters and capitals are not needed, and where money is a consideration, Number 4.

(4) We do not recommend Number 1 Remington except where all other considerations are sacrificed to money.

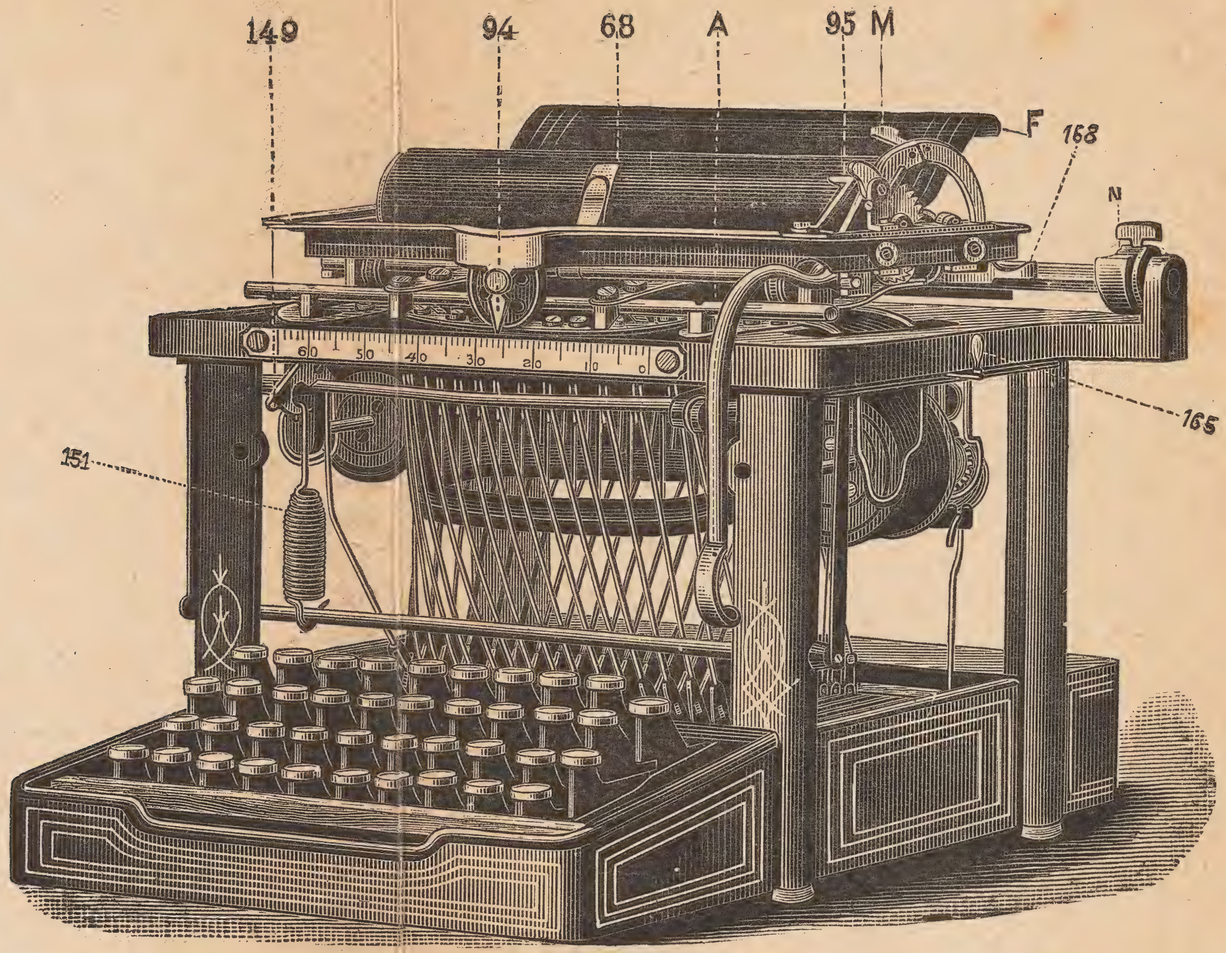
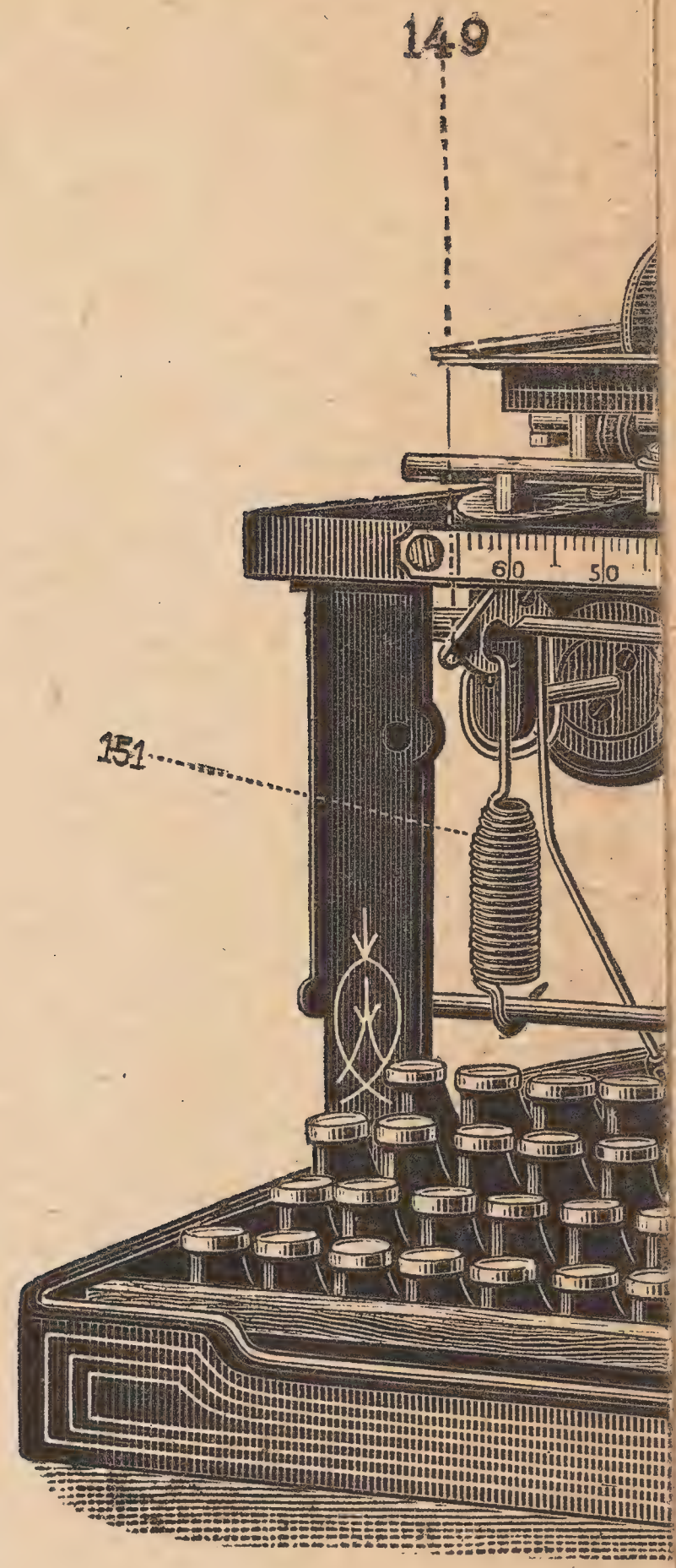



PLATE I.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# General Lessons on the Type-Writer.

## LESSON I.

### THE RATIONALE OF THE TYPE-WRITER.

The Type-writer sacrifices mere external beauty to utility. The machine looks complicated, but it is in reality very simple. It is only the multiplicity of parts which gives the novice this impression. Let him thoroughly examine the machine for himself before taking his first lesson in writing.

SEE PLATE I.

There is a japanned iron frame enclosing and holding the working parts, consisting of a base, four upright posts and a top-plate. In the front of the machine are four banks of keys arranged in steps, like the keys of an organ.

Let him examine one key at a time, and clearly understand its function, and he will instantly grasp the general idea. Note that one key is devoted to each letter of the alphabet. (The figures and signs we shall notice afterwards.) Each key is at the end of a long, light wooden bar, called a "key-lever." Depress a key slowly, and it will be seen that the bar is hinged at the opposite end, and that as the key is pressed, a wire that is fastened to the middle of the key-lever (called a "connecting wire") is drawn downwards. The other end of this wire is attached to the end of one of the type-bars, which in its turn is drawn down at the end fastened to the wire and correspondingly raised at the other. Upon the end that is raised will be seen the metal type. These type-bars are arranged in the form of a circle, and their "type-ends" come up to a common centre when the keys are depressed.

A great step towards disabusing the mind of the pupil as to the apparent complexity will be made if he will notice that when a key is touched only one type-bar is set in

motion; all the others remain stationary. If he understands this, and masters the action of one type-bar, he will then comprehend the whole of this section of the mechanical construction of the machine. It must also be clear to him what we mean by the difference between multiplicity and complexity. The Type-writer is not complex, although it has so many parts, because the same parts are repeated over and over again, the action being simplicity itself.

The reader will observe that, no matter which key is depressed the types strike in identically the same spot.

On the top of the Type-writer are two rollers. The larger one is covered with hardened india-rubber, the smaller is of wood. This smaller cylinder is known as the "feed-roll," because it feeds the paper to the other cylinder. Two elastic india rubber bands connect these cylinders, so that if one of them revolves the other must do so also.

Immediately behind the two cylinders is a sloping japanned iron shelf (F. Plate 1) which serves to keep the paper straight, and prevents it being injured by the mechanism. This is called the "paper-shelf."

In front of the four banks of keys there is a narrow strip of wood which is called the "space-bar." This is fastened at each end to wooden levers resembling the key-levers. It may be depressed at any point, but while it permits the carriage to move, it raises no type-bar, and therefore no impression is made upon the paper.

Take a sheet of paper eight inches wide, and, working entirely from the top, place the edge of it gently between the two rollers, so that each side of the paper comes directly over the elastic bands. These bands are for the purpose of guiding the paper round the cylinder. On turning the front roller the paper will be tightly held. The two cylinders revolve in a frame, called the "carriage," which is hinged at the back, and can be raised from the

front by the hand (94, Plate 1). By raising the carriage and by turning the rubber cylinder towards you, the paper is made to move forward. In the middle is a small strip of metal attached to a rod in front, ending in a little cylindrical wheel, called a "friction-roll," which nearly touches the hard rubber cylinder. This is called the "envelope holder and paper guide," (68, Plate 1) and is for the purpose of keeping the paper against the cylinder. While the carriage is raised, continue turning the cylinder with the fingers, and at the same time guide the paper under the envelope holder. As soon as the envelope holder has caught it, the paper is in position, and the carriage may be lowered.

Directly under the cylinder, when in position, is a ribbon prepared with a moist ink. This ribbon runs across the machine, and winds and unwinds on two spools or reels situated under the right and left of the top plate of the iron frame.

From the foregoing description we see that :—

(1) The paper is held round the rubber cylinder.

(2) Immediately under the paper, while so held, is a ribbon charged with moist ink.

(3) Upon depressing a key a type-bar is raised, at the end of which is a type corresponding with the character on the key struck.

(4) All the type strike at exactly the same point.

(5) The type strikes against the inked ribbon, and this in turn, coming against the paper, which is held round the cylinder, makes an impression in ink on the paper.

Before passing on to further consider the mechanism, the student should fully understand the parts already described, and should be able to answer the following questions :

## Exercise 1.

1. Of how many parts is the iron framework of the type-writer composed?

2. Describe them.

3. To what are the keys attached?

4. Describe the process by which the types are brought into position for writing.

5. Name the various parts for accomplishing this.

6. What is the "feed roll?" Explain the purpose of the elastic bands connecting the two cylinders.

7. Name the movable piece of japanned iron at the back of the cylinders.

8. Explain what is meant by the part called the "carriage."

9. What is the "envelope holder and paper guide?"

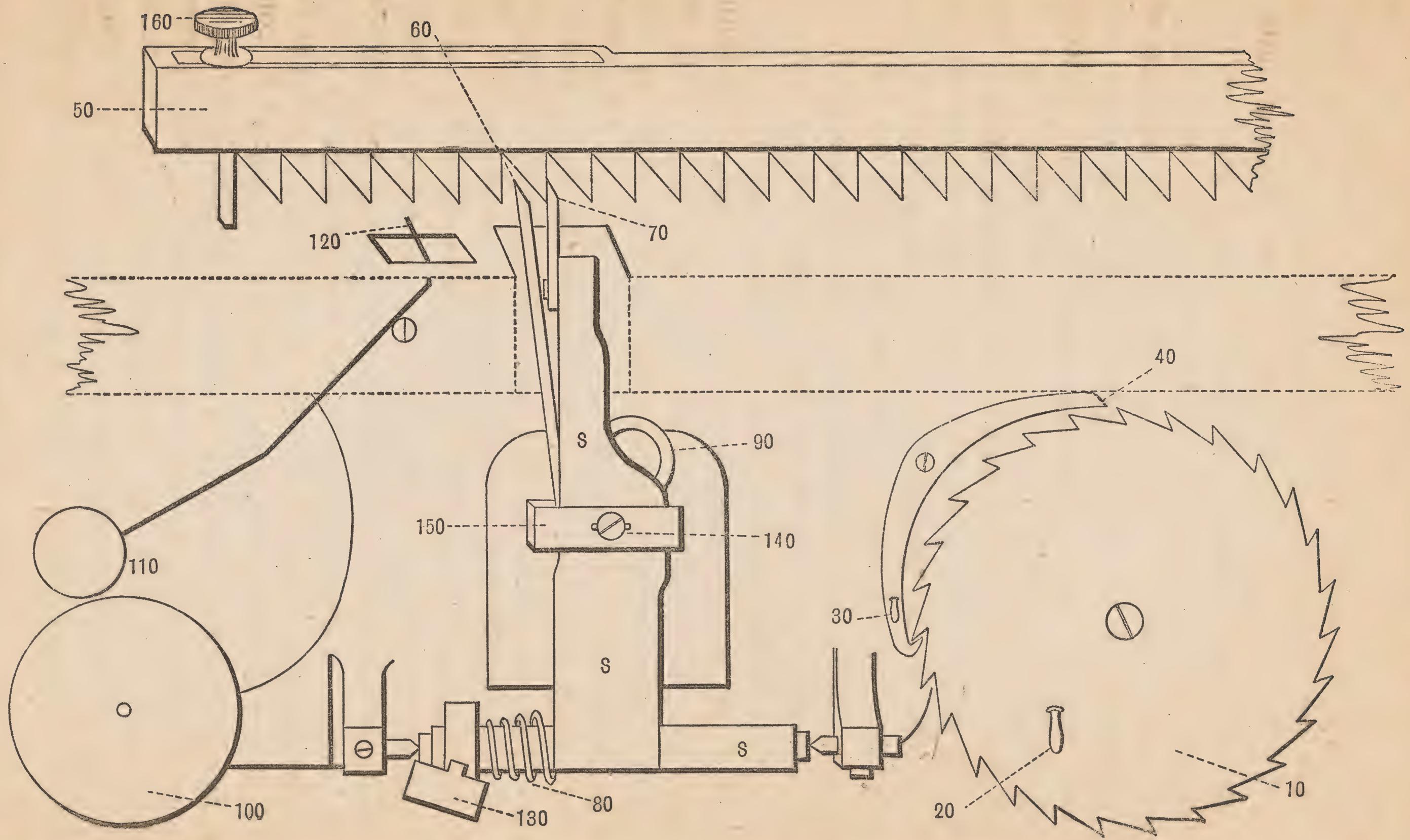
10. Which is the "space-bar?"

## LESSON 2.

It must already have occurred to the mind of the pupil that, if the carriage bearing the paper remained in the same position, and each type struck in exactly the same place, the letters would be printed one over the other. He has probably noticed that upon liberating a key which has been struck, the carriage has moved automatically, from right to left, the space of a letter, so that when the next key has been depressed the type has made an impression in the correct place. This calls for some ingenious mechanism, and the pupil should understand the *modus operandi* of each part before proceeding to actual practice.

The simplest way to describe this portion will be by the aid of a diagram, which should at the same time be compared with the machine itself. In making the examination the learner may turn the machine in any way, but must bear in mind that the carriage should be prevented from falling back with violence, or damage will ensue. The plate here given is a sketch of a part of the back of a No. 2 machine.

Referring to Plate 2, at fig. 10, is a ratchet wheel, which




SPACING MECHANISM. PLATE 2.

is fastened to a powerful clock-spring. It is wound up by turning the small handle at fig. 20, the double ratchet pawl * (figs. 30 and 40) keeping it from slipping back. This spring provides the force for the automatic movement of the carriage from left to right, a thin strap being fastened to it and to the carriage. What is technically known as the "carriage tension"—by which is meant the force drawing the carriage automatically from right to left—is due to the tension of the clock-spring which is fastened to the ratchet wheel (fig. 10, Plate 2), and the degree of tension is entirely under control. It will be seen that as the carriage is drawn into position by the hand from left to right, at the close of a line, the tension that has been lost by the movement of the carriage from the opposite direction is regained. The carriage tension once properly adjusted seldom requires attention, and pupils are strongly advised to leave it alone until they have thoroughly mastered the machine. The carriage, being drawn by the spring, would fly from right to left upon being liberated by the hand if there were not some restraining influences. At the back of the top plate is a rack (fig. 50, Plate 1), the space between the teeth of which is exactly that occupied by a letter in printing.

Beneath the centre of the row of key-levers will be seen a narrow wooden bar, called the "universal bar," which is attached to mechanism in the upper part of the machine by wires. In Plate 1, the wire on the right hand side will be distinctly seen, its hook being between the right ribbon spool and the furthest upright post of the machine.

When the space-bar or any of the keys (with the exception of those marked "upper" and "lower-case" in the double-lettered machines) are touched, the lever operated presses this universal bar down, and by so doing sets in action the mechanism we shall now describe.

* Pawl.—A catch to check the backward revolution of a wheel.

There are two "dogs†" in the Type-writer (figs. 60 and 70, Plate 2), that at 70 being known as the "rigid dog," and that at 60 as the "loose dog." Both rock backwards and forwards in the iron part which holds them, called the "spacing-rocker," (SSS, Plate 2), but the "loose dog" has also a side movement. They may be described as a catch split in two, and work through an opening in the back of the top plate.

Their action is as follows:—The carriage tension is continually trying to draw the carriage from right to left. The "dogs" being pressed by the spring at fig. 80, Plate 2, the "loose dog" catches in one of the teeth of the rack, the "rigid dog" being free, both "dogs" being level with each other. When a key is struck the key-lever presses down the universal bar. The universal bar is connected with the spacing-rocker (SSS) by two wires, and draws the "dogs" forward. By this means the "rigid dog" comes into position and continues to restrain the carriage from moving, but the "loose dog," being liberated, has been thrown sideways by the spring at fig. 90, Plate 2, so that it is ready to catch the next tooth of the rack. The finger is lifted off the key, and as the "dogs" fall back into place the rack is passed on one tooth—*i.e.*, the space of one letter ; because, as the "rigid dog" leaves the rack the loose one slips in between the teeth, and the carriage-tension draws it up even with the "rigid dog," as in the first position. If this seems at all difficult to be understood by the non-mechanical student, let him go carefully over it again and again until it is perfectly clear. If he takes the pains to understand all about his machine, he will be able to keep it in order, and be largely independent should anything go wrong. Repairers are called in for the most trifling mishaps, when even a superficial knowledge of the mechanism of the Type-writer would

† Dog.—A kind of catch or clutch.

have enabled the operator to set it right again for himself in a few seconds. Therefore learn what your machine is, as well as what it will do.

### EXERCISE II.

1. Describe the "universal bar," its position and function.
2. To what is it attached?
3. What draws the carriage from right to left?
4. What prevents the "carriage-tension" from running down?
5. What is a "dog" (mechanical)? How many are there in a Type-writer, and how are they distinguished?
6. Describe as fully as possible the action of the "dogs."
7. What is meant by the "rack?"

## LESSON 3.

When the carriage has moved almost as far as it will go toward the left, a bell is heard to ring. This is to warn the operator that the end of the line is nearly reached. After this he can still write four or five letters, and if the word he is writing is too long, he is enabled to divide it properly. The bell is shown at fig. 100, Plate 2, the "bell-hammer" at fig. 110, Plate 2. The hammer will be seen to be fixed to one end of a stout wire, the other end of which is bent, so that it is lifted as the "bell-ringer" passes over it (fig. 120, Plate 2,); and as soon as it is liberated, falls with sufficient force to strike the bell.

To return the carriage for the commencement of a new line it will be seen that the rack (fig. 50, Plate 2), must be lifted clear of the dogs. This can be accomplished by pressing down the thumb-piece (fig. 168, Plate 1), at the right of the carriage, with the right hand, and while so holding it pushing the carriage from left to right with the left hand; then by letting go the thumb-piece the rack falls on the dogs and is held. As it is more convenient to work the carriage from the front, a device has been

arranged called the "carriage-lever" for this purpose (A, Plate 1). To use it, hold it firmly and draw it toward you. The lever has an ingenious curve, and the end will be found to press down on the thumb-piece (fig. 168, Plate 1), so that the rack is raised. Still holding the carriage lever well toward you, a continued pressure to the right will return the carriage to the proper position. In using the carriage-lever be careful to hold it well toward you while drawing the carriage to the right, so that the teeth of the rack are kept free of the dogs all the way, or both the rack and dogs will be unnecessarily worn. At the same time care must be taken that the carriage be not lifted off the front bar.

At the right of the hard-rubber cylinder is a ratchet-wheel, and it will be noticed that when the carriage-lever is operated, a small pawl,—called the "line-space-pawl," (M, Plate 1,) being pressed into a notch of the ratchet-wheel forces the cylinder backward, and thus automatically brings the paper into place for a new line. It follows, therefore, that the carriage must not be raised by this lever when an examination of the writing is to be made, or the cylinder will be turned, and the paper moved out of position.

The distance between the lines can be regulated at will. The "space-gauge," as it is called (fig. 95, Plate 1,) is a little thumb-piece at the extreme right of the carriage. When raised so that it points upward, the spacing between the lines is narrow; when lowered so that it points toward you, the lines are twice as wide apart.

The ink ribbon is made to move automatically, and requires no attention until it has been completely wound from one spool to the other. Its direction can then be reversed as follows. At the left side of the machine, and close to the back post, will be found a small nickel-plated handle. This is the end of a long shaft that runs across the

machine under the top plate. There are three grooves in this shaft, in anyone of which a latch directly above it will fall and keep the shaft from shifting while in no way hindering it from revolving. Suppose the ribbon is all wound on the right hand spool: lift the latch and pull out the shaft until the latch falls into the third groove. The ribbon will now wind automatically on the left hand spool. When this in turn is full, the latch is raised, the shaft pushed in as far as it will go, and the latch allowed to fall into the first groove. If the latch rests in the middle groove the ribbon-movement is detached so that the spools remain stationary even while the machine is being worked, and if the machine be used while the latch is in this position, the ribbon would soon be worn through by the type striking on the same spot. The middle groove is useful only in manifolding or when an old ribbon is being removed, which will be described later on. By shifting the handle projecting under the right side of the top plate (165, Plate 1,) backward or forward the type can be made to strike other parts than the middle of the ribbon, so that when the ink is exhausted in one part the ribbon can still be made to do service by being slightly shifted.

## EXERCISE 3.

1. How is the carriage returned from left to right?
2. What difference is there in returning the carriage by the thumb-piece and by the carriage-lever?
3. What does the carriage-lever effect besides raising the rack free of the dogs?
4. What is the line-space-pawl?
5. Why must the carriage not be raised by the carriage-lever?
6. How is the distance between the lines regulated, and by what?
7. Explain how the motion of the ribbon can be reversed.
8. What is the use of the lateral ribbon movement?

## On Position.

Position is most important, and ought to receive proper attention. One of the greatest evils of penmanship is, that the writer has to bend over the desk, narrowing his chest, rounding his shoulders, and injuring his lungs. It is cruel that the men and women who do the most to educate us, whose active brains are pressed into our service, so that we can in truth "reap where we have not sown," and cull the flowers planted by other hands, should, by the physical conditions imposed by their employment, receive bodily injury. In addition to the many ills resulting from mere position while writing with the pen, some of our writers are crippled by that most distressing malady known as "writer's cramp." To the writer it means more than mere pain. His bread, his home, the life and the comfort of his family all depend on the faithful hand that has turned the scintillations of his mind into money and kept the roof over his head. Instead of stooping, the operator on the Type-writer sits upright. His chair must be drawn up close to the instrument.

## Touch.

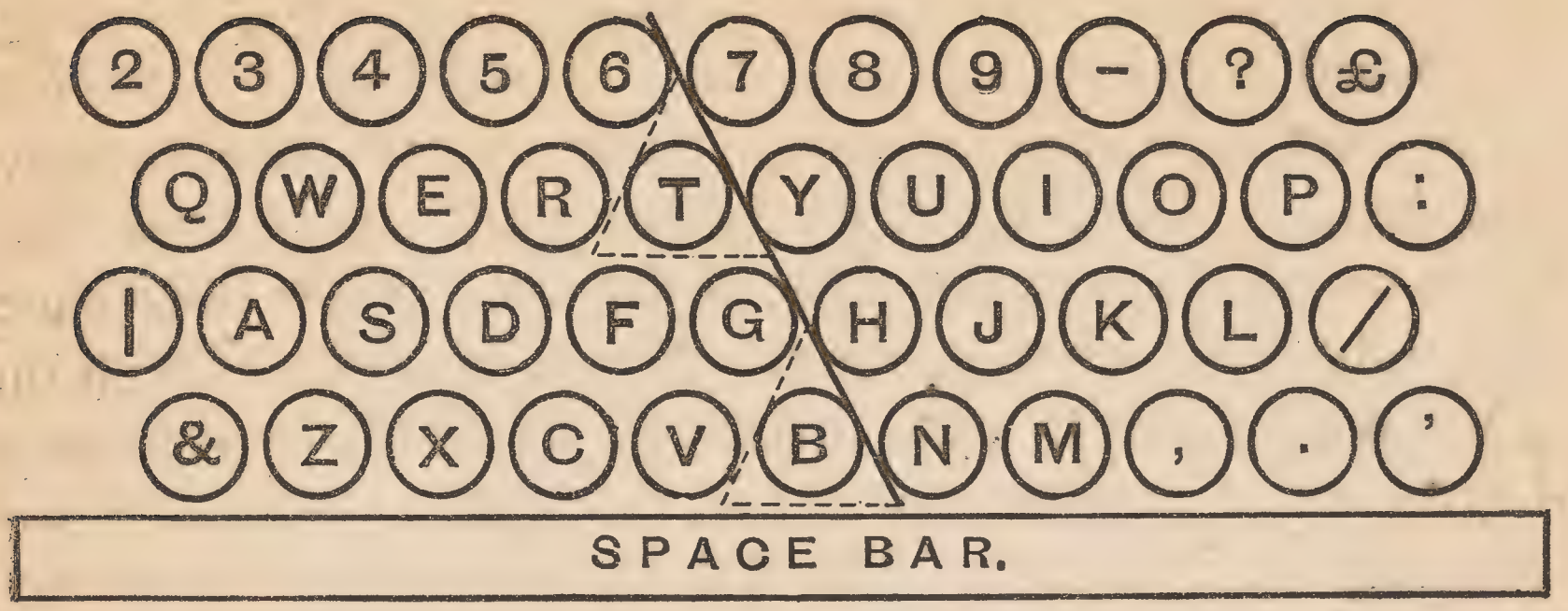
The operator's motto should be "touch and go." One key must be depressed at a time, and the blows should be sharp and quick,—sharp enough to make a clear impression, and quick enough to make room for the next type. The marks of punctuation must be used with care. They are so small and sharp that if their keys be struck forcibly they go through the paper, and penetrate more or less the rubber cylinder, according to the force of the blow. The beginner is apt to treat his machine with uncalled-for severity. If he only knew what a friend it would prove to him in time to come, he would perhaps temper his blows with discretion. As the learner remains in ignorance until he finds that he has hammered the rubber cylinder

so that it is permanently indented, perhaps the best thing is to advise him to use a stout, smooth sheet of paper at the back of the sheet he is writing on, which will greatly protect the cylinder. In inserting the sheets let the two edges be even with each other at the top, and place them squarely in the machine, the sheet to be written on being underneath, so that the one which is to serve as a backing is nearest the cylinder. Another plan is to insert the sheet to be written on, and after giving the cylinder a slight turn, place the backing sheet between the first sheet and the cylinder; then on again turning the cylinder both sheets will be held. This suggestion need not be looked upon with contempt even by the professional operator, for when a paper backing is used, the writing is invariably improved.

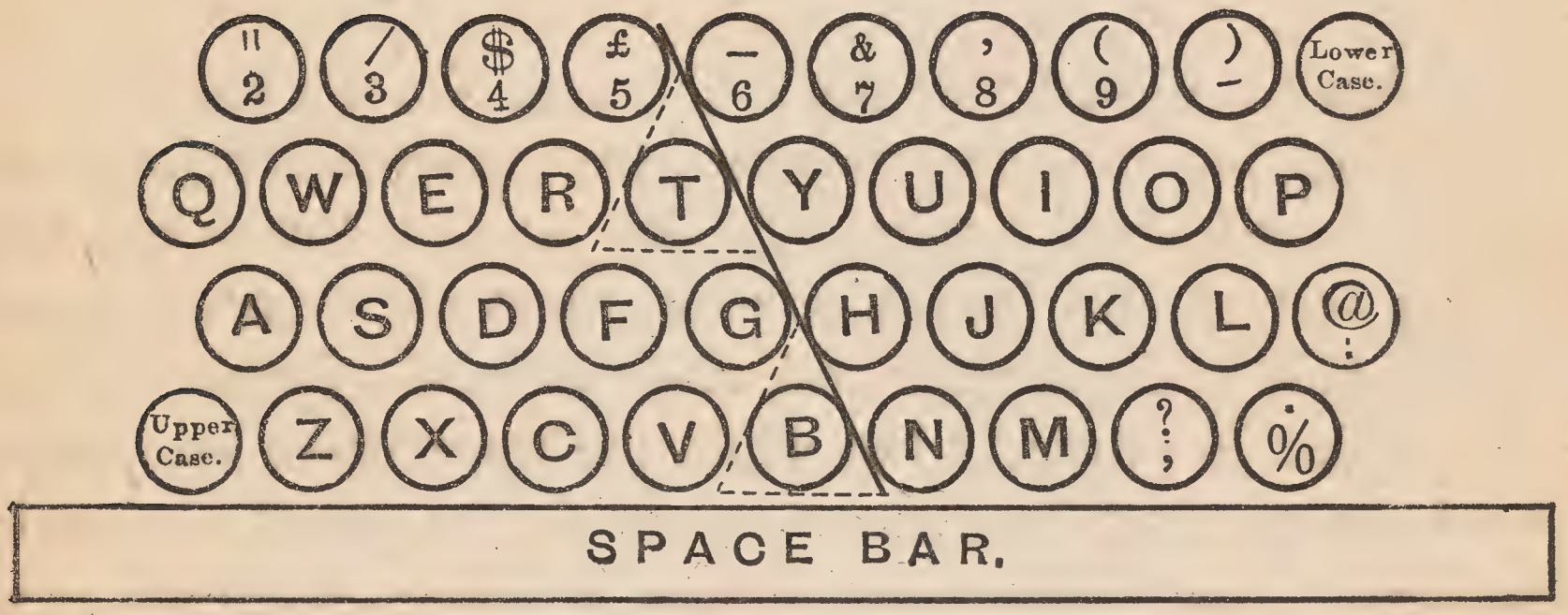
The learner is liable to get his fingers smeared with the ink: this may be avoided by careful manipulation. The old proverb "Cleanliness is next to Godliness" holds good in commerce. The cleanliness must extend to the machine itself; and as this is a most important matter, the operator will be given clear directions how to keep his machine in order, under the general heading "Care of the Type-writer."

## Arrangement of the Keys.

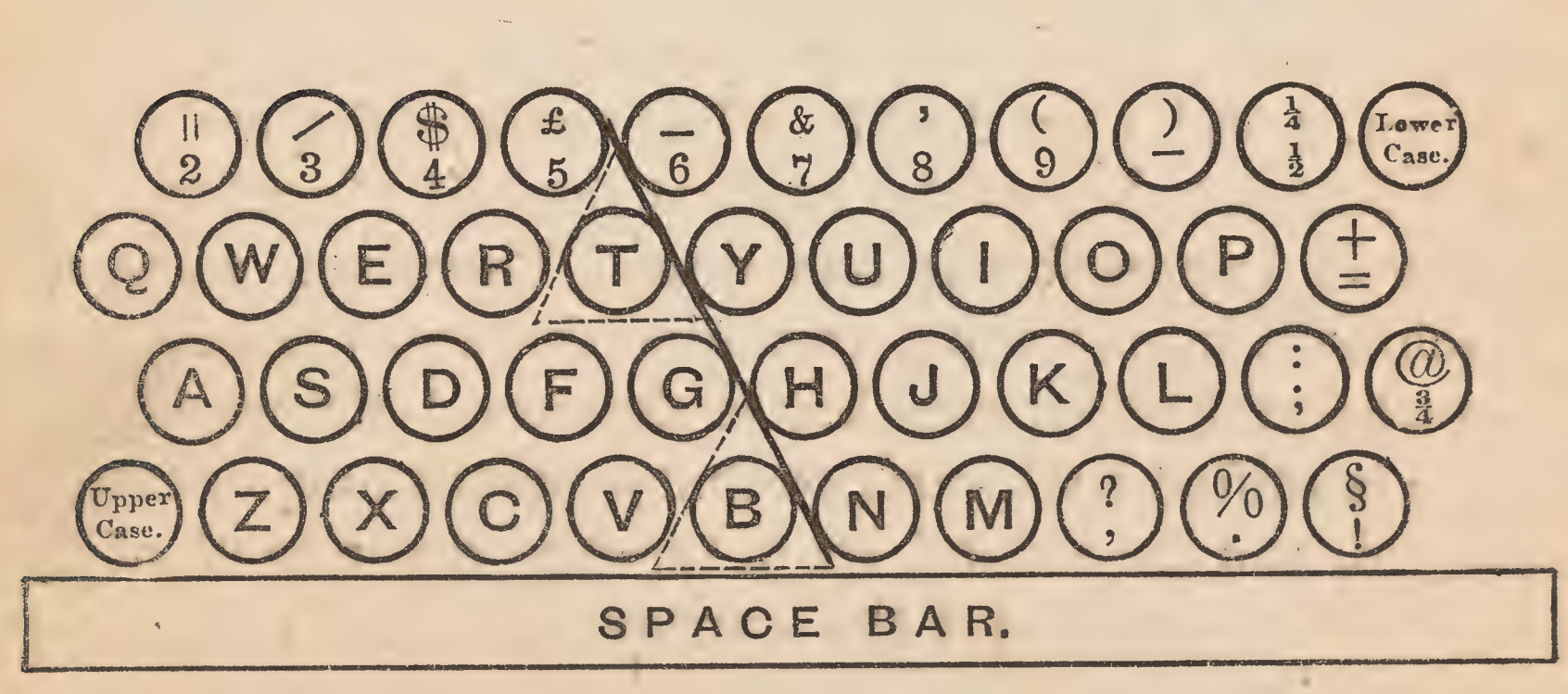
When a compositor has set up a sentence in type, which is afterwards disarranged by an accident, it is said to be "pied." To the unpractised eye of the inquirer the keyboard of the Type-writer looks as if a similar description would apply to it. Why its alphabet should begin with Q, and end with M, is mysterious at first sight. But the reason of this disorder soon becomes clear. The keys are arranged so that greater facility is given to fingering than if the letters were placed in their usual order. We here give the various key-boards, about one third their actual size.




KEYBOARD OF NO. 4 TYPE-WRITER.




KEYBOARD OF NO. 2 TYPE-WRITER.




KEYBOARD OF NO. 3 TYPE-WRITER.

The diagonal line drawn through the middle of each keyboard is purely mnemonical. It will aid the learner in remembering the correct position of the hands while operating. The fingers of the left hand must never be used on the keys to the right of the line. The fingers of the right hand when using the No. 1 or No. 4 machine, must not, except in rare instances, be used on the keys to the left of the line, nor in the No. 2 or 3 machine when printing small letters. The letters "t" and "b" enclosed in the dotted lines may be operated by the first finger of either hand.

## THE UPPER CASE.

It has been said that the No. 1 and No. 4 Type-writers print capitals only, but that the other machines print both capitals and small letters. In the latter a key at the extreme left of the lowest row is marked "upper case." When this is depressed, and while so held a key is struck, the capital is printed; but when the upper-case key is not held down, and the same key used, the small letter is printed. The explanation of this is simple, although that fact does not lessen the ingenuity of the idea.

At the end of each type-bar are two types. It has been stated that all the types strike on the same spot; and this is true of the No. 1 and No. 4 machines; but the types in Nos. 2 and 3 are double. The curve of the cylinder is such that only one of the types at the end of each bar can make an impression at one time. Therefore, when the machine is in its normal condition the small letters print, but when the upper case key is depressed the whole carriage is shifted backward, so that a new common centre is created, and the second set of types prints instead of the first. It follows that if the carriage can be held in this position the machine will write in capitals only, which is sometimes required. This can be done by pushing back

the hook (fig. 149, Plate 1), to which the spring (fig. 151, Plate 1), is attached. The pressure must be upward as well as backward. When the machine is required to write small letters again, the hook has only to be raised and drawn forward. Be particular to see that in either operation the hook is pushed or pulled, as the case may be, as far as it will go, or the impression of the type will not be true. If while the machine is adjusted to write all capitals (upper case), a small letter (lower case) is called for, the key marked "lower case" must be held down while the key is struck. The beauty of this duplex arrangement of type is that the number of keys is reduced to one-half, *i.e.*, the key-board is the same size as that of the single type machine, although the number of characters is double. Having learned the position of any key the student has in reality mastered two, since the same key represents both capital and small letter.

The keys devoted to other signs than the letters have two characters marked on each. The "upper" character mark or figure is obtained by treating it as if it were a capital letter, and striking the key while the upper case key is held down ; the lower characters will print when this key is in its normal position. Beginners are very apt to release the upper case key too soon ; and when this is done the type makes a false impression.

## Exercise 4.

1. How should the operator sit at the machine ?
2. How should the keys be struck to ensure a clear impression ?
3. What is the use of a second sheet of paper ?
4. What keys should be struck with the fingers of the left hand ?
5. How is a capital letter obtained ?
6. What is the use of the hook at the left hand of the machine ?

## Method of Fingering.

Mr Petrie's method of fingering by the numbers 1 to 6 will be adopted throughout this work, as it is the most practicable. The following table explains itself:—

| | | | |
|---|---|---|---|
| Right hand | 1st | Finger | Fig. 1 |
| | 2nd | ,, | ,, 2 |
| | 3rd | ,, | ,, 3 |
| Left hand | 1st | ,, | ,, 4 |
| | 2nd | ,, | ,, 5 |
| | 3rd | ,, | ,, 6 |

The first thing to be done by the pupil is to master the alphabet in its newly arranged form, so that the position of a key is known instinctively.

### Exercise 5.

Write this ten times.

5 1 4 5 5 4 1 2 2 1 2 3 2 1 2 3 5 4 5 4 2 1 5 4 1 5
a b c d e f g h i j k l m n o p q r s t u v w x y z

Write this ten times to memorize the vowels.

1 1 4 5 1 4 1 2 1 1 2 3 2 1 1 3 5 4 5 4 1 1 5 4 1 5
*A* b c d *E* f g h *I* j k l m n *O* p q r s t *U* v w x y z

Write this until tolerably familiar with the positions of the keys.

5 1 4 5 4 2 1 5 4 6 3 2 1 2 3 2 1 2 1 4 4 5 4 4 1 5
z y x w v u t s r q p o n m l k j i h g f e d c b a

## Dropped Letters.

It will occasionally happen, that from carelessness, or an attempt to push the speed of writing beyond the capacity of the operator, a key will be depressed sufficiently to lift the rack free of the dogs, but not with enough force to bring the type in contact with the ribbon. The result is precisely the same as if the space-bar had been used, a

blank being left. This is easily remedied. The learner will have noticed two scales, one in the front of the machine and one beneath the cylinder. They are graduated in tens, which are subdivided into units, every fifth division being specially marked. The front scale is numbered from right to left, the other from left to right. In the middle of the front of the carriage is a small pointer, which comes over the front scale. The two scales correspond, and as the pointer travels along, it shows the exact spot in the line where a type will print, upon a key being struck. Thus, suppose that it points to "20," and a key is struck; on raising the carriage it will be found that an impression of the type has been made immediately over "20" on the scale placed beneath the cylinder. If, therefore, a letter has been "dropped" all that the operator has to do is to raise the carriage and observe the degree on the scale where the blank space occurs, then (after lowering the carriage) raise the rack by the thumb-piece, (fig. 168, Plate 1,) and push the carriage back until the pointer indicates the corresponding degree in the front scale, when on striking the proper key the error will be remedied.

The further use of the scales must already be apparent to the learner. Without them it would be a matter of extreme difficulty to do tabulated work, or to find the correct spot at which to commence uneven lines, &c.

## The Space Bar.

The space-bar should be operated by the thumb. This is sound advice, and it would be well that the pupil should at once adopt it. It is true that a large number of operators—some of them among the most rapid and accurate—touch the bar with a finger. If, therefore, after *long practice*, the operator finds that he instinctively slips into the habit of using a finger instead of the thumb,

there will be nothing gained, and a good deal of valuable time lost, in striving to acquire the system of employing the thumb. It should, however, be remarked that those operators who work the space-bar with the thumb are less likely to touch a key in the lower row by mistake.

### EXERCISE 6.

For practice write the following, and then carefully insert the "dropped" letters :—

a b c d e f g **h** i j k l m n o p q r s t u v w x y z
a b c  e f  h i j k  m n o  q  s t u v  x y z
  b c  e f g h i j k l  n o p q  s t u  z

Now let the pupil proceed to the exercise given below, first of all writing the lines, and then turning the cylinder back and putting in only one "dropped" letter at a time ; and *never doing two in succession in the same line*. Repeat this until it is accomplished without a mistake. Bear in mind that to turn the paper back the carriage must be raised, the line-space-pawl (M, Plate 1), must be pressed with the second finger of the right hand ; and while so held the cylinder must be turned with the left hand. Do not use the thumbs for fear of smearing the paper with ink :

a b c d e f g h i j k l m n o p q r s t u v w x **y** z
a b c  e  g h  j **k** l  n  p q r s t  v w x y
a  c d  f  h i j  l m  q r  **t** u v  y z
  b  d e g  k l m n o p  s  u  w **x**
a  c d  f g h i  k  m  o  **q** r s t u  w  x  z
a b  d e f  h  j  l  n  p  r  t  v  x y z
  c  e  g  i j k  m n o  q  s t u  w  y z

### WORD EXERCISES.

### EXERCISE 7.

In the three following exercises the pupil must master the correct fingering of each word before attempting the sentences. The fingering for the same word will fre-

quently vary somewhat, when written all in small letters or beginning with a capital.

| | |
|---|---|
| 2<br>I | 124<br>but |
| 5 2<br>am | 2 5 1<br>may |
| 42<br>to | 15<br>be |
| 4 1 2 1 2<br>think | 5 4 2 1 4<br>wrong |
| 2 1 4 2 1 1 5 4<br>inclined | |

I am inclined to think. Am I inclined to think? I think I am wrong. To think I am inclined. I may be wrong but am inclined to think. To think I am wrong. I am wrong but may be inclined to think. I may be wrong. I am inclined to think I am wrong. I think I may be wrong. But maybe I am wrong.

## Exercise 8.

Note.—(The words "that" and "have" are exceptions to the general rule, and the fingering given will be found to be the simplest).

| | | |
|---|---|---|
| 1 5 3 2 1 2 1 4<br>Reply (ing) | 415<br>the | 451<br>say |
| 1 2 1 4 5<br>Your(s) | *2141<br>16th | 4 2 5 1<br>that |
| 46424 5<br>favor (s) | 2154<br>inst. | 21<br>in |
| 24<br>of | 2514<br>have | 121<br>you |
| 525<br>are | | |

* The figure "1" is made with the small letter "l," not with the capital I; and the figure "O" with the upper case "O."

Your reply. Your favor. In reply to yours of the 16th inst., have to say. Replying to your favor I am inclined to think. You say in yours of the 16th inst. that you think I am wrong. Have I the favor? May I have the favor? In your reply you say I am wrong. Replying to your favor of the 16th inst., may I say that I think you are wrong. You say I am wrong, but I am inclined to think that you are. "Maybe," you say in your favor of the 16th inst., "you think I am wrong." Replying to yours of the 16th inst., I have to say that I am inclined to think that you are wrong

## EXERCISE 9.

| | | |
|---|---|---|
| The (re) | been | b e l i e v e |
| on | p a r t | g o o d s |
| Ra i l way | Co. | were |
| not | m a r k (ed) | pl a i n l y |
| and | m i s u n d e r s t a n d i n g | |

The goods have been plainly marked. I think the Railway Co. marked the goods. Part of the misunderstanding I believe may have been yours. Misunderstanding yours of the 16th inst., part of the goods were marked; but plainly you are in the wrong. I think the misunderstand-

ing is on your part. I believe the Railway Co. to be in the wrong. You have a part of the goods. You say in your favor of the 16th inst. that you have the goods marked "A." Are you in favor of the Railway Co.? I am inclined to believe that yours were marked, but not on the 16th inst. Your favors have been replied to in part.

1 45
Are your goods marked? Are you replying to the Railway Co.? Replying to your favor of the 16th inst., I have to say that I am inclined to think you are wrong. There may have been a misunderstanding on the part of the Railway Co. I believe the goods were not plainly marked.

## Exercise 10.

| | | |
|---|---|---|
| 5122<br>will | 1541<br>very | 4215<br>find |
| 4125<br>this | 2154<br>list | 2541<br>last |
| 24<br>it | 414145<br>future | 24245<br>price |
| 5414<br>sent | 45121<br>truly | 1 4 5 2 5 4 1 4 1 2 2 1<br>R e s p e c t f u l l y |

I think that in the future it will be the part of the Railway Co. to mark the goods plainly. Your price list received. The last may have been wrong. Will there be a misunderstanding with the Railway Co.? I believe your last list to have been wrong. Have the goods sent to the

Railway Co. You say in your favor of the 16th inst. that the price list may be wrong. In future, goods will be sent to the Railway Co., plainly marked. You will find the price plainly marked in the list. You will find that the goods were sent on the 16th inst., and were very plainly marked on the list. Your future favors will be respectfully sent to the Railway Co. On your part see that the goods are marked very plainly. Will this misunderstanding be the last?

21

## Business Letters.

The object of a letter is to ask for or to give information. This should be done in precise language, concisely and politely worded. To be able to write a good letter is to possess qualifications which cannot be acquired in a day, and which no mere hints as to forms, arrangement and expression can secure. The general form can be learned, but the style and wording of the body of the letter—the essential part of the communication—must depend on the experience and education of the writer. The world of commerce has its code, which it has reduced to the fewest possible words. It has to be polite, because politeness is indispensable to success; but its politeness is cut and dried. "We are in receipt of your favor of the — inst., for which we thank you." "In reply to your esteemed favor of the," etc. The shorthand-writer and Type-writer operator may be well up in the classics, and have Whately's Rhetoric by heart, but if he knows not the phraseology of the counting-house, his knowledge will be of small avail until it has run into the grooves prepared by usage.

The editorial "we" and the individual "I" must not appear in company. If "we" begin a letter, "we" write it, and "we" sign it. If "I" write a letter, "I" write it, and "I" sign it.

The paper used in offices generally has a printed heading giving the name of the firm and address of the place of business. The first thing, therefore, is to write the date. In doing this, the day is generally placed before the month, and the line ended with the year. The first two figures (representing the century) are frequently omitted. Thus, 87. stands for 1887. Then follows the name of the person to be written to with his address. After the salutation, if a letter has been received, it should be acknowledged, and the questions contained therein answered. If these questions deal with distinct subjects a space should be left between each division of the letter. After the writer has said what he has to say the letter should be closed. It is bad to say too much, and dangerous to say too little. If one is tempted to write a business letter in anger, let him, if possible, keep it till the next post. He will then write differently.

There is not space in the present work to present many forms of business letters, and the learner is referred to the numerous works devoted exclusively to this branch of study. A month's practice in a house of business is worth a library of books on the subject. The knowledge required is, as a rule, narrowed down to one particular trade, and the technicalities employed are soon learned by those who are intelligent. The letters given are for practice in type-writing. Those that are numbered should be gone over carefully, following the fingering; and afterwards written out from dictation. The remainder may be written in shorthand from dictation, and then transcribed, or used as copy. Before doing this let the pupil practice the ordinary "display work."

## EXERCISE 11.

```
:-:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::
:0   :   1:0   :   2:0   :   3:0   :   4:0   :   5:0   :   6:0   :
```

London,

Dec. 2nd. 1887.

Gentlemen:-

Replying to your esteemed favour &c.

Yours truly,

E.A.Franklin.

Write in a similar manner :—

Birmingham, 20 Jany., 1888. James A. Story, Esq. The Grove, Wolverhampton. Dear Sir,—We beg to inform you that, etc. Yours respectfully, Joseph Brown

Sheffield, 3 March, 1887. Messrs. Dobstetter, Krump and Co., Berlin. Dear Sirs :—Should you have occasion to write, etc. Yours very truly, Ward and Chambers.

London, 18 August, 1887. Thomas L. Hamlin, Esq., Doncaster. Dear Mr Hamlin,—I have to thank you for, etc. Yours sincerely, Adam Glisson.

## EXERCISE 12.

NOTE.—The fingering of all the words in the body of the following letter has been given in Exercises 6, 7, 8 and 9.

22142I 2I4I I524 2III
London, 18th Sept., 1887

I2I544 I I22I5 I42I I45
Robert Williamson, Esq.

5 I2I5 I2
2 Alma St.,

2I4542III
Liverpool.

1454 124
Dear Sir,—

Replying to your favor of the 17th inst., I have to say that I am inclined to think you are wrong. There may have been a misunderstanding on the part of the Railway Co., but I believe the goods were not plainly marked.

Enclosed you will find the price list, and it shall be sent in future.

Yours very truly,

15145 1 1241
James Smith.

## EXERCISE 13.

221421 54 251 2111
London, 23 May, 1887.

245545 15145 1 12544
Messrs. James & Tower.

1241
York.

151425151
Gentlemen,—

1214 45424 24 415 5514 2154 42 1514 514 42145145
Your favor of the 22nd inst. to hand, and contents

12454. noted 14 2514 125 21 54241 5 4215 2115 24 1542154
We have now in stock a fine line of Refined

1445454 21 521 45442214 2 25 45124151 54 212 254 21
Beeswax, in 3lb. cartoons, 1 oz. tablets at 1/8 per lb.,

5124154 1521545 5122 5124 121 14524214 1214 45455254
which we believe will suit you. Awaiting your esteemed

24454
order,

14 45252 1
We remain,

12145 45121
Yours truly,

15 1421 124454 1 12
Hanson Biggar & Co.

## EXERCISE 14.

22I42I 24 I524 2III
London, 14 Sept., 1887.

I 544I45 I I5I454 I45
Matthew S. Sanger, Esq.,

I4545442522I2I I24
Newcastle-on-Tyne.

I454 I24
Dear Sir,—

2 I5I 42 542I2525445 4I5 4545I24 24 I2I4 45424
I beg to acknowledge the receipt of your favor

24 4I5 254I 2I54 5422I4 425 424454454 2I42I45 II5
of the 12th inst., asking for corrected invoice. The

245I5 254254 5445 2I42I454 524I 4I5 5I2325I4 2545 2I
items marked were included with the shipment made on

4I5 545 I24 24 I I22552I I 5I4 5445 542I2525445 4 12
the 3rd. ult. pr. "Blossom", and were acknowledged by

I2I 2I I2I4 254454 45I44 24I I24 4I5454245 4I545 25 I2
you in your letter dated 1st. Aug., therefore there is no

54424 2I 4I5 5442II4 54 45I45454
error in the account as rendered.

I2I45 45I2I
Yours truly,

I I I45I242I
J. G. Crampton.

## EXERCISE 15.

I425422 22 II2I 2III
Bristol, 10 July, 1887.

245545 I224, I2I I I2
Messrs. Cole, Son & Co.

25I4I45I54
Manchester.

I5I425I5I
Gentlemen,—

I 4 4625 2I454I45 2I I2424I2I4 I2I 425I 2I4
We take pleasure in notifying you that our

45245542454245 24 I2II I224I 5I22 4522 2I I2I 244I
representative Mr John Allen will call on you next

I 2I 45I 24 I 24545 I 524I 45 I 2I45 24 2I4 I24524245 425 4I5
Monday or Tuesday with samples of our novelties for the

I2425425 4 44542I I 2 2445424 I24 I2I 5I22 54 2I4 522
Christmas season. By ordering now you will avoid all

4252 24 42553321I425I4 I 4 5I42423545 5 5254I52 452 5I4
risk of disappointment. We anticipate a special demand

424 52I225 5I4 45424I245 2I I24I 24 5I24I 2II45 54 45I
for albums and reticules in both of which lines we can

24454 2I24I52 I54I52I4 I4545 524I 25 25 I4252
offer unusual bargains. Trade with us is brisk.

I2I45 I54I 45I2I
Yours very truly,

II24I42I I I2I24
Thurnton & Gould.

---

25I4I45I54
Manchester,

I2I4 224I 2III
June 10th, 1887.

245545 I5252I 24I45424 I I2
Messrs. Jepson McGregor & Co.

I254425
Glasgow.

I5I425I5I
Gentlemen:—

I2I4 45455254 24454 24 4I5 24I 2I54 425 I
Your esteemed order of the 8th inst. for 6

II254I52 I25545 454 4I2I 4545I454 I5 I2I I2I4454 42
Imperial Mowers was duly received. As you omitted to

54I 5I54I54 I2I 45I4 4I5 I 24 I 54I25 54 I224 4I5
say whether you want the A or B style, we hold the

42245 I24I2 4I44I54 544245 I4 4I5I 545 I55454 I445I42I
goods until further advice. If they are needed urgently,

54I5 5 45I5455 2
send a telegram.

I2I45 45I2I
Yours truly,

I545524I I I2III54
Hardwick & Spinner.

## Prefixes and Suffixes.

A useful exercise at this juncture will be to memorize the correct fingering for the principal prefixes and suffixes as here given.

### Prefixes.

| | | | | | |
|---|---|---|---|---|---|
| 1 2<br>Ab | 5 1<br>ab | 1 4<br>Ac | 5 4<br>ac | 1 4<br>Ad | 5 4<br>ad |
| 1 4<br>Af | 5 4<br>af | 1 2<br>Ag | 5 1<br>ag | 1 2<br>Al | 5 2<br>al |
| 1 2<br>Am | 5 2<br>am | 1 2 4<br>Amb | 5 2 1<br>amb | 1 1<br>An | 5 1<br>an |
| 1 2 5<br>Ana | 5 1 5<br>ana | 1 1 4<br>Ant | 5 1 4<br>ant | 1 2 4 5<br>Ante | 5 1 4 5<br>ante |
| 1 1 4 2<br>Anti | 5 1 4 2<br>anti | 1 3<br>Ap | 5 2<br>ap | 1 3 2<br>Apo | 5 3 2<br>apo |
| 1 4<br>Ar | 5 4<br>ar | 1 4<br>As | 5 4<br>as | 1 1<br>At | 5 1<br>at |
| 1 5<br>Be | 1 4<br>be | 1 5 1 5<br>Cata | 4 5 1 5<br>cata | 1 2 4 4 1 2<br>Circum | 4 2 4 4 1 2<br>circum |
| 1 2<br>Co | 4 2<br>co | 1 2 4<br>Cog | 5 2 4<br>cog | 1 2 2<br>Col | 4 2 2<br>col |
| 1 2 1<br>Com | 4 2 1<br>com | 1 2 1<br>Con | 4 2 1<br>con | 1 2 1 4 5 6<br>Contra | 5 2 1 4 5 6<br>contra |
| 1 2 4<br>Cor | 4 2 4<br>cor | 1 5<br>De | 4 5<br>de | 1 2<br>Di | 4 2<br>di |
| 1 2 5<br>Dia | 4 2 5<br>dia | 1 2 4<br>Dif | 5 2 4<br>dif | 1 2 5<br>Dis | 4 2 5<br>dis |
| 1 4<br>Ec | 5 4<br>ec | 1 4<br>Ef | 5 4<br>ef | 1 2<br>Em | 5 2<br>em |
| 1 2<br>En | 5 1<br>en | 1 2 4 5 4<br>Enter | 5 2 4 5 4<br>enter | 1 2 1<br>Epi | 5 2 1<br>epi |
| 1 4<br>Ex | 5 4<br>ex | 1 4 1 4 5<br>Extra | 5 4 1 4 5<br>extra | 1 2 4 5<br>Fore | 4 2 4 5<br>fore |
| 1 1 3 5 4<br>Hyper | 1 1 3 5 4<br>hyper | 1 1 3 2<br>Hypo | 1 1 3 2<br>hypo | 2 4<br>Ig | 2 4<br>ig |

| | | | | | |
|---|---|---|---|---|---|
| 12<br>Il | 12<br>il | 21<br>Im | 21<br>im | 21<br>In | 21<br>in |
| 21454<br>Inter | 21454<br>inter | 21452<br>Intro | 21452<br>intro | 24<br>Ir | 24<br>ir |
| 241<br>Met | 254<br>met | 2415<br>Meta | 2415<br>meta | 125<br>Mis | 125<br>mis |
| 121<br>Non | 121<br>non | 21<br>Ob | 21<br>ob | 24<br>Oc | 24<br>oc |
| 24<br>Of | 24<br>of | 23<br>Op | 23<br>op | 214<br>Out | 214<br>out |
| 1254<br>Par | 254<br>par | 2545<br>Para | 2545<br>para | 254<br>Per | 254<br>per |
| 2541<br>Peri | 2541<br>peri | 214<br>Por | 214<br>por | 21454<br>Post | 21454<br>post |
| 245<br>Pre | 245<br>pre | 245454<br>Preter | 245454<br>preter | 241<br>Pro | 241<br>pro |
| 214<br>Pur | 214<br>pur | 15<br>Re | 45<br>re | 154<br>Red | 454<br>red |
| 15452<br>Retro | 45452<br>retro | 15<br>Se | 54<br>se | 121<br>Sub | 521<br>sub |
| 121454<br>Subter | 521454<br>subter | 124<br>Suc | 524<br>suc | 124<br>Suf | 524<br>suf |
| 124<br>Sug | 524<br>sug | 113<br>Sup | 512<br>sup | 11354<br>Super | 51354<br>super |
| 124<br>Sur | 514<br>sur | 125<br>Sus | 515<br>sus | 12<br>Sy | 52<br>sy |
| 112<br>Syl | 512<br>syl | 112<br>Sym | 512<br>sym | 112<br>Syn | 512<br>syn |
| 215<br>Tra | 145<br>tra | 14525<br>Trans | 14525<br>trans | 21<br>Un | 21<br>un |
| 12454<br>Under | 12454<br>under | 1241<br>With | 5241<br>with | | |

## SUFFIXES.

| | | | | | |
|---|---|---|---|---|---|
| 645215<br>aceous | 641<br>acy | 625<br>age | 6145<br>ance | 6241<br>ancy | 645<br>ard |
| 641<br>ary | 652<br>asm | 615<br>ate | 125<br>ble | 425<br>cle | 4125<br>cule |

| | | | | | |
|---|---|---|---|---|---|
| 421 | 55 | 554 | 51 | 5145 | 5241 |
| dom | ee | eer | el | ence | ency |
| 54 | 541 | 454514 5 | 454514 | 455 | 412 |
| er | ery | escence | escent | ess | ful |
| 1225 | 24 | 245 | 245 | 24 | 125 |
| hood | ic | ice | ics | id | ile |
| 215 | 214 | 121 | 154 | 251 | 152 |
| ine | ing | ion | ise | ish | ism |
| 154 | 145 | 145 | 154 | 2455 | 254 |
| ist | ite | ive | ize | less | let |
| 2115 | 2114 | 21 | 25141 | 1241 | 1455 |
| like | ling | ly | ment | mony | ness |
| 24 | 241 | 254 | 215 | 5424 | 5123 |
| or | oay | ose | ous | self | ship |
| 5214 | 5154 | 1245 | 41 | 145 | 5645 |
| some | ster | tude | ty | ure | ward |

## THE UNDERSCORE.

When special attention is to be called to a word or sentence it is underscored. In the Number 4 machine, the universal bar is not depressed, and the carriage is not moved. It follows, therefore, with this machine that when a word is to be italicized, the underscore mark is struck before each letter. In the Number 2 and 3 machines it is placed in the upper case, and will be found above the figure 6. As the carriage moves one space when the key is struck, the word, or phrase is first written, and then the carriage is returned by means of the thumb piece, fig. 168, Plate 1, for the Number 2; or with the Number 3 is merely pushed back into place, so that the cylinder is not turned, and while the upper case key is depressed the underscore is made where required. Write the following for practice :- -

The speech of Galgacus to the Britons before the battle of the Grampian Hills, A.D. 85.

When I consider the motives that have roused us to this war; when I reflect on the necessity that now demands our firmest vigor, I expect everything great and noble from that union of sentiment that pervades us all. From this day I date the freedom of Britain. We are the men who never crouched in bondage. Beyond this spot there is no land where liberty can find a refuge. Even the sea is shut against us, while the Roman fleet is hovering on the coast. To draw the sword in the cause of freedom is the true glory of the brave, and, in our condition, cowardice itself would throw away the scabbard. In the battles which have hitherto been fought with alternate vicissitudes of fortune, our countrymen might well repose some hopes in us; they might consider us as their last resource: they knew us to be the noblest sons of Britain, placed in the last recesses of the land, in the very sanctuary of liberty. We have not so much as seen the melancholy regions where slavery has debased mankind. We have lived in freedom and our eyes have been unpolluted by the sight of ignoble bondage. —*Tacitus.*

## DISPLAY WORK.

It is often advisable to "display" certain lines, such as the heading to a circular, the title of a book, the names of the directors of a company, &c., and with a little ingenuity very neat work of this character can be done. It is true that there are only the capitals and small letters, but much variety is produced by spacing both the letters and lines. In the following the pupil will find an example of what is meant; and after a little practice he should be able to display work for himself.

:0 : 1:0 : 2:0 : 3:0 : 4:0 : 5:0 : 6:0 :

New Coinage of Sixpences of different

Pattern to those issued for the Jubilee.

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PROCLAMATION BY THE QUEEN

---

Copied from the London Gazette of Tuesday, November 29th, 1887.

---

By the QUEEN.

A PROCLAMATION.

VICTORIA R.

WHEREAS by "The Coinage Act 1870" it is (amongst other things) enacted that it shall be lawful for Us, by and with the advice of Our Privy Council, from time to time by Proclamation to determine the design for any Coin.

Now therefore We have, by and with the advice of Our Privy Council, thought fit to determine and do order that certain coins called "Sixpences" made and to be made at the Mint, and mentioned in the first Schedule to the aforesaid Act, of the weight and fineness specified in that Schedule, shall bear designs as follows:-

For the Obverse Impression Our Effigy with the Inscription "Victoria Dei Gratia Britt: Regina F.D.," and for the Reverse the words "Six Pence" placed in the centre of the piece, having an Olive Branch on one side and an Oak Branch on the other, surmounted by the Royal Crown, and the Date of the Year between and below the branches, and a Graining upon the Edge.

And whereas Coins of the above description have been coined at Our Mint, and will be coined there in pursuance of Orders which We have given for that purpose, We have, therefore, by and with the advice of Our Privy Council, thought fit to issue this Our Royal Proclamation, and We do hereby ordain, declare, and command that the said Coins so coined, and to be coined as aforesaid, shall be current and lawful Money of the United Kingdom of Great Britain and Ireland, and that this Our Royal Proclamation shall come into operation forthwith on the date thereof.

Given at Our Court at Windsor, this twenty-eighth day of November, in the year of our Lord. one thousand eight hundred and eighty-seven, and in the fifty-first year of Our Reign.

GOD SAVE THE QUEEN.

---

:0 : 1:0 : 2:0 : 3:0 : 4:0 : 5:0 : 6:0 :

ISSUE OF £45,000 FIVE PER CENT.
FIRST PREFERENCE STOCK.

The Directors of the
EASTERN and MIDLANDS RAILWAY (Incorporated by Act of Parliament) are prepared to receive APPLICATIONS, for £45,000 FIVE PER CENT. FIRST PREFERENCE STOCK, at 65 per cent., payable as hereinafter stated.

Length of lines completed and opened for traffic 176 miles
viz:- Peterborough, Wisbeach, and Sutton Section, 27 miles
Midland and Eastern Section, ..... 36 miles
Lynn, Yarmouth, and Norwich Section, .....114 miles

Total miles constructed and in operation 176 miles

Issue of £45,000 Five per Cent. First Preference Stock of the Lynn, Yarmouth, and Norwich Section of the Company (comprising all the lines East of Lynn) being the unissued balance by resolution of the 20th July, 1887, under special Acts of Parliament.

The lines of the Company connect with the system of the Great Northern Railway at Spalding and Bourne, and the systems of the Great Northern, London and North-Western, and Midland Railway Companies, at Peterborough.

DIRECTORS.

Robert A. Read Esq., The Cranes, Surbiton-hill. S.W.
Jocelyn J. F. Otway Esq., 14, St George's-place. S.W.
William Martin Wilkinson Esq., 44, Lincoln's Inn-fields. W.C.
Francis Wm. Slade, Esq., 10, Victoria-chambers, S.W.
Solicitors - Messrs. F.C.Matthews and Browne, 151, Cannon-street. E.C.
Secretary and Office: E.B. Reed, Esq., 9, Victoria-chambers, Westminster, London. S.W.

Price of issue £65 per 100 Five per Cent. First Preference Stock, payable as follows:

| | | |
|---|---|---|
| £5 | per cent. | on application. |
| £20 | ,, | on allotment. |
| £20 | ,, | one month after allotment. |
| £20 | ,, | two months after allotment. |
| £65 | per cent. | |

Subscribers have the option of paying up in full on allotment under discount of 5 per cent. per annum.

Reckoning interest at 5 per cent. per annum for four years on £65. added to the issue price of the stock, the time estimated, as hereinafter stated, when a full 3 per cent. dividend on the nominal value of the stock will be earned, the stock will yield to the investor interest at the rate of more than 5¼ per cent. from the date of issue.

## To Regulate the Margins.

The margin at the left of the sheet is regulated as follows:—Set the carriage so that the indicator in front points to the degree at which the lines are to commence. Loosen the stop-collar (N, Plate 1), and slide it along until it comes in contact with the trip; then fasten. Move the carriage out of the way by lifting the rack by means of the thumb piece (168, Plate 1), and then tighten the screw. To regulate the margin at the right, set the carriage so that the indicator in front points to the degree at which the lines are to end. Loosen the screw of the Bell-ringer (160, Plate 2), and slide it against the dogs and fasten. The bell will then ring, a warning, five spaces before the end of the line is reached. In a similar manner the machine can be arranged for narrow paper. Each paragraph should be indented, that is, it should not begin at 0 but at 5, 10 or 15, as the case may be.

## Business Forms.

The pupil may now copy the following business forms for practice, striving at accuracy rather than speed :—

MARINE INSURANCE COMPANY,
LONDON.

No. .....
£ .....
.....

BE IT KNOWN THAT as well in own name, as for and in the name or names of all and every person Part or in all, doth make Insurance, and cause and them, and every of them, to be Insured, lost or not lost, at and from including the risk of Craft to and from the Vessel upon any kind of any Goods and Merchandises, and also upon the body, tackle, apparel, ordinance, Munition, Artillery, Boat and other

furniture, off and in the good ship or vessel, called the whereof is Master, for this present voyage or whosoever shall go for Master in the said ship, or by whatsoever other name or names the same ship or Master thereof is or shall be named or called : beginning the adventure upon the said goods and merchandises from the loading thereof aboard the said ship, at upon the said ship, etc., at and so shall continue and endure, during her abode there, upon the same ship, etc. And further until the said ship with all her Ordnance, Tackle, Apparel, etc., and goods and Merchandises whatsoever, shall be arrived at and upon the said ship, etc., until she hath there moored at Anchor twenty four hours in good safety : and upon the goods and merchandises until the same be there discharged and safely landed. And it shall be lawful for the said ship, &c., in this voyage to proceed and sail through and touch and stay at, any port or places whatsoever without prejudices to this Insurance. The said ship, etc., goods and merchandises, etc., for so much as concerns the Insured, by agreement made between the Insured and the said Company in this Policy, are and shall be rated and valued at touching the adventures and perils which the said Company are contented to bear and do take upon them in this voyage, they are of the Seas, Men of War, Fire, Enemies, Pirates, Rovers, Thieves, Jettisons, Letters of Mart and Counter Mart, Surprisals, Takings at Sea, Arrests, Restraints, and detainments of all Kinds, Princes and People of what Nation, condition and quality soever,—Barratry of the Master and Mariners, and of all other perils, losses and misfortunes, that have or shall come to the hurt, detriment or damage of the said goods, and merchandises, and ship, &c., or any part thereof. And in case of any loss and misfortune it shall be lawful to the Insured, their Factors, Servants and Assigns, to sue,

labor and travel for in and about the defence, safeguard and recovery of the said goods and merchandises and ship, &c., or any part thereof, without prejudice to this Insurance: to the charges whereof, the said Company will contribute according to the rate and quantity of the sum herein Insured. And it is agreed by said Company that this writing or Policy of Insurance shall be of as much force and effect as the surest writing of Insurance heretofore made in Lombard St., or in the Royal Exchange or elsewhere in London. And so the said Company are contented and do hereby promise and bind themselves and their successors to the Insured, their Executors, Administrators, and Assigns, for the due performance of the premises, confessing themselves paid to consideration due unto them for this Insurance by the Insured, at and after the rate of

N.B.—Corn, Fish, Salt, Fruit, Flour and Seed are warranted free from average unless general or the ship be stranded. Sugar, Tobacco, Hemp, Flax, Hides and Skins are warranted free from Average, under five pounds per cent. And all other goods: also the ship and freight are warranted free from average, under three pounds per cent., unless general or ship is stranded.

IN WITNESS WHEREOF, and that the said Company are content with this Insurance for the sum of three of the Directors of the said Company have hereunto set their hands this day of in the year Eighteen Hundred and

## Form of Promissory Note.

London, March 29th, 1875.

£100

Two months after date I promise to pay to Mr Williams, or order, the sum of One Hundred Pounds for value received.

Thomas Latham.

# FORM
# of
# Bill of Lading.

SHIPPED, in good order and well conditioned, by ROBSON & Co., in and upon the good ship called the ARISTOTLE, whereof is Master, for this present voyage, JOHN JOHNSON, and now riding at anchor in the River Thames, and bound for Singapore, to say,

| | | |
|---|---|---|
| C.E. | | |
| R. & Co., | 1/10 | Ten hogsheads beer, |
| | 16/18 | Three cases brandy, |

being marked and numbered as in the margin, and are to be delivered in the like good order and well conditioned, at the aforesaid port of Singapore (the act of God, the Queen's Enemies, Fire, and all and every other dangers and accidents of the seas, Rivers and Navigation, of whatever nature and kind soever, excepted), unto Harold Stone or to his Assigns, freight for the said goods being paid here, with Primage and Average accustomed.

IN WITNESS WHEREOF, I, the said Master of the said Ship, have affirmed to three Bills of Lading, all of this Tenor and Date; the one of which three bills being accomplished the other two to stand void.

Dated in London, 31st of March, 1867.

Arthur Lewis.

Contents unknown, and not accountable for leakage or breakage.

FORM

Of an Ordinary Bill drawn in the United Kingdom.

London, 31st March, 1860.

£100.

Three months after date pay to Mr George Bolingbroke, or order, the sum of One Hundred Pounds, for value received.

Howard Jamieson.

To Messrs King and Knight,
Manchester.

FORM

Of a Foreign Bill of Exchange.

Montreal, January 1st, 1865.

£100.

Three months after sight of this FIRST of Exchange (second and third of the same tenor and date being unpaid) pay to the order of Messrs Wright & Tyler the sum of One Hundred Pounds value received; and charge to our account with or without further advice.

Millard and Smith.

To Messrs Fergusson & Co.,
London.

FORM

Of an Ordinary Prescription.

R

Spts. Frumenti.
Sac. Alb.
Aqua pura.
Tr. Gentain Comp.

M.

Use as directed between meals

## Form of a Will.

THIS IS THE LAST WILL AND TESTAMENT OF ME, _____

_____

of _____

in the county of _____

I HEREBY revoke all Wills by me, at any time heretofore made, and declare this to be my last WILL and TESTAMENT. I appoint _____

_____

_____

to be Execut_____ of this my WILL, and direct that all my just Debts and Funeral and Testamentary Expenses shall be paid as soon as conveniently may be after my decease.

I GIVE AND BEQUEATH

Signed, _____

Dated this _____ day of _____

in the year of Our Lord, One Thousand Eight Hundred and _____

Signed and declared by the said _____

the Testator, as and for h last Will, in the presence of us, present at the same time, who, at h request, in h presence, and in the presence of each other, have subscribed our names as witnesses.

_____

_____

_____

## Dramatic Work.

The Typewriter is now largely used for making copies of plays and "parts." A separate sheet should be used for the "Title," and another for the "Cast." The underscoring should be done in red ink. The general copy should, unless otherwise ordered, be written on letter-size paper. For the "Parts," the sheets are usually cut in half.

EVERYBODY'S FRIEND,

An Original Comedy

in

THREE ACTS,

by

J. STIRLING COYNE.

----------o----------

CHARACTERS.

| | |
|---|---|
| MR FELIX FEATHERLEY . . | Mr Chas. Mathews |
| MR ICEBROOK . . . . . | Mr Compton |
| MAJ. WELLINGTON DE BOOTS . | Mr Buckstone |
| COACHMAN . . . . . | Mr Moyse |
| GARDENER . . . . . | Mr Weathersby |
| TRAP . . . . . | Master D. Carroll |
| MRS FEATHERLEY . . . | Mrs Charles Mathews |
| MRS MAJ. DE BOOTS . . . . . | Mrs Wilkins |
| MRS SWANDOWN . . . . . | Miss Reynolds |
| FANNY . . . . . | Miss Fanny Wright |
| COOK . . . . . | Mrs Henrade |

## COSTUMES.

MR FELIX FEATHERLEY.—Handsome morning gown, smoking cap, dark check trousers, patent boots, light hair and whiskers. 2nd dress. Light fashionable surtout, hat, gloves, &c. 3rd dress. Full evening dress.

MR ICEBROOK.—Modest walking suit, hat, gloves, &c. 2nd dress. Evening dress, straight hair.

DE BOOTS.—White trousers, blue military frock, hat, &c., red hair and whiskers. 2nd dress. Scarlet regimental coat, sash, dark trousers with red stripe.

Coachman.—Coachman's suit.

Gardener.—Dark suit, green apron.

TRAP.—Page's suit with buttons.

MRS FEATHERLEY.—Muslin dress, trimmed with violet. 2nd dress. Neat silk check, bonnet, shawl, &c. 3rd dress. Handsome ball dress.

MRS DE BOOTS.—Brown moire visite, bonnet, &c. 2nd dress. Light blue silk, trimmed with white lace.

MRS SWANDOWN.—Handsome walking suit, bonnet, &c. 2nd dress. White moire, trimmed with red silk velvet. 3rd dress. Handsome ball dress.

----------o----------

## EVERYBODY'S FRIEND.

- - - - - - o - o - o - - - - - -

SCENE. Mr. Featherley's house at Clapham. A handsomely furnished apartment on the ground-floor, door at entrance at back C., through which is seen the hall.

Mrs. FEATHERLEY discovered in a plain morning dress, seated at table, R.C., looking over account books and papers---the COOK near the table ---GARDENER and COACHMAN waiting up stage.

Mrs. F. (to COOK).

A neat little dinner, cook, with fish and soup, and a small dessert will suffice when we dine alone. I have marked some items in your weekly bill that may be dispensed with in future. (Gives COOK a paper.)

COOK.

Oh, very well, ma'm.

(Aside to servants).

Calls herself a lady, and cuts down her cook like that.

(Goes up stage L).

Mrs. F. (to GARDENER).

I find, Drill, that growing early peas is a very costly economy: those we had the other day, cost us a shilling a pea. We'll have no more early peas !

GARDENER.

As you please, ma'am.

(Aside).

Rob a gardener of his early peas ! I'll never stand that.

(Going up L.)

Mrs. F.

Where's the Coachman ?

COACHMAN.

Here, Madam !

(Comes down to table).

Mrs. F.

This account of yours is not correct, Harris; I can't make thirty-five days in a month.

(Gives him paper).

COACHMAN.

I beg pardon, Madam.

(Aside).

I'll give warning to-morrow.

COOK

(And the others talk apart L.)

I never was so insulted in my born days.

GARDENER.

The place won't suit me, I see.

COACHMAN.

Nor me, I hate Missusses, who pry into what don't consarn 'em.

GARDENER.

But Master's a perfect gentleman; *he* never troubles himself about servants.

COOK.

No; he's too busy about other people's affairs to mind his own,---but as for missus, agh!

Exeunt SERVANTS, C.

FEATH.

(Speaking outside, L.)

Trap! here, take these letters to the post, and let my horse be at the door in half-an-hour.

(Enter FEATHERLEY, followed by TRAP, with letters in his hand, who crosses and exits C., back).

FEATH.

(Turning over the leaves of his memorandum book).

Let me see what engagements I have to day? Um! to call at Grip and Grind, the lawyers, about my executorship under old Bagley's will. It seems I've been unconsciously doing something I should not have done, and that I'm to be simultaneously made the defendant in twenty-four actions at law, besides standing a good chance of being committed by the Lord Chancellor for contempt. *I*, that have always had the highest respect for that exalted functionary.

(Looks at memorandum book).

Twelve o'clock I'm to be at Grip and Grind's offices, Bedford Row. Twelve,---that's awkward. I've promised Crawford to introduce him to Lord Lazytongs at twelve, and there are half-a-dozen other appointments that I *must* keep---but how is it to be done?

Mrs. F.

(At her accounts at table, R.)

Put down six, and carry nothing.

FEATH.

Hey!

(Turns and sees Mrs. F.)

Eugenia, I did not perceive you. What are you doing, my love?

Mrs. F.

Casting up my monthly bills. Would you like to look over them?

FEATH.

By no means, my dear,---I have the most unbounded confidence in your correctness, morally and arithmetically. I audit your accounts without looking at them, and pass them unanimously.

Mrs. F.

(Rising and crossing to L.)

At least, you'll sit down, Felix, and check the butcher's pass-book for me. I suspect he has put down a leg of mutton which we have never had, and I'm not sure that his charges are always right. Sit down; here are pen and ink.

(Puts the pass-book into his hands, and sits at work-table, L.)

FEATH.

I---I---

(Takes seat at table R., and sighs).

What's this? "B-f--." Oh, ah! that's the phonetic for beef---and here, in the next line---"Brush, brash, breast of---of w-h-e-a-l."

Mrs. F.

Veal, my dear!

FEATH.

What a superfluity of literature your butcher bestows upon a breast of veal. Um! "Nine pound ten ounces at sevenpence three-farthings, six and twopence three-farthings."

(Aside).

I might as well try to discover the longitude---I've a dreadful headache this morning, which quite unfits me for abstruse calculation. That confounded Benson would insist on my supping with him, last night, after the opera. You know Benson, my dear, an old friend of mine---capital fellow, the best cigars in London. I resisted as long as I could, knowing you were here alone, and should have been so delighted to have spent a quiet, sociable evening together; but a man must sometimes make a sacrifice of himself for his friend.

Mrs. F.

Undoubtedly, my dear, "sometimes," but you are perpetually offering yourself on the altar of friendship, and in your eagerness to render yourself useful to anyone who needs your assistance, you entirely neglect your own affairs.

FEATH.

Now really, my dear Eugenia, you are too severe. I confess, when a friend wants a helping hand, even on a bill of exchange, I can't refuse him---it's a constitutional weakness: sternly speaking, it may be a fault---but it's not pleasant to be reminded of one's faults.

SAMPLE OF "FEATHERLEY'S PART" WITH CUES.

FEATHERLEY.

_____ but as for missus, agh !

(Exeunt servants, C.)

(Speaking outside). Trap ! here, take these letters to the post, and let my horse be at the door in half-an-hour.

Enter L., followed by TRAP with letters in hand.

(Turning over the leaves of memorandum book). Let me see what engagements I have to-day. Um ! To call on Grip and Grind, the lawyers, about my executorship under old Bagley's will. It seems I've been unconsciously doing something I should not have done, and that I'm to be simultaneously made the defendant in twenty-four actions at law, besides standing a good chance of being committed by the Lord Chancellor for contempt. *I*, that have always had the highest respect for that exalted functionary.

(Looks at memorandum book).

Twelve o'clock I'm to be at Grip and Grind's offices, Bedford Row. Twelve, that's awkward. I've promised Crawford to introduce him to Lord Lazytongs at twelve, and there are half-a-dozen other appointments that I *must* keep---but how is it to be done ?

_____ and carry nothing.

Hey ! (Turns and sees Mrs. F.) Eugenia, my love, I did not see you. What are you doing ?

_____ to look over them ?

By no means, my dear,---I have the most unbounded confidence in your correctness, morally and arithmetically. I audit your accounts without looking at them, and pass them unanimously.

_____ here are pen and ink.

I---I--- (Takes seat at table R., and sighs). What's this ? "B-f," Oh, ah ! that's the phonetic for beef---and here, in the next line,---"brush, brash, breast of---of w-h-e-a-l."

_____ Veal, my dear.

What a superfluity of literature your butcher bestows upon a breast of veal. Um ! "Nine pounds ten ounces at sevenpence three-farthings, six and twopence three-farthings." (Aside.) I might as well try to discover the longitude---I've a dreadful headache this morning, which quite unfits me for abstruse calculations.

That confounded Benson would insist upon my supping with him, last night, after the opera. You know Benson, my dear, an old friend of mine---capital fellow, the best cigars in London. I resisted as long as I could, knowing you were here alone, and should have been so delighted to have spent a quiet, sociable evening together; but a man must sometimes make a sacrifice of himself for his friend.

_____ your own affairs.

Now really, my dear Eugenia, you are too severe. I confess, when a friend wants a helping hand, even on a bill of exchange, I can't refuse him---it's a constitutional weakness: sternly speaking, it may be a fault,---but it's not pleasant to be reminded of one's faults.

_____ one's whole time to them.

## ADDRESSING ENVELOPES.

A slovenly address is usually a sign that the letter also is slovenly. In a typewritten address use the double line spacing, and let the lines be evenly balanced as follows :—

Messrs. James B. Poulton & Co.,

119 Parliament Street,

Manchester.

Robert Malcolm Esq.,

Waterview Square,

Dundee.

H. S. Caldeman Esq., M.D.,

Abbey House,

Monmouth Street,

HUDDERSFIELD.

John Thomas, Esq.,

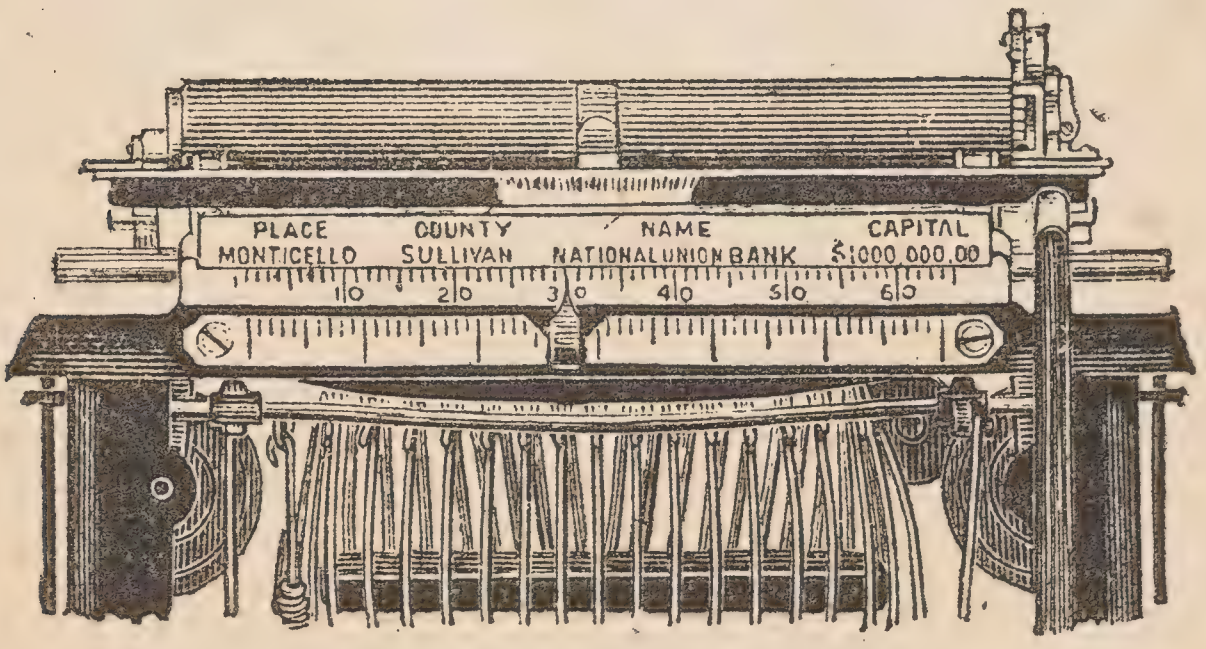
11 Gresham Street,

Cardiff, WALES.

The use of the envelope guide now becomes apparent. With paper of the ordinary width, the two sides are held in place by the rubber bands, but this is not so with an envelope of ordinary width. The envelope is placed at the extreme left of the cylinder so that the band on that side catches one edge; and then raising the carriage the other edge of the envelope is guided under the holder, which it will be seen takes the place of the second rubber band. Care must be exercised that the writing does not extend beyond the proper limit. If many envelopes have to be addressed it will be well to alter the Bell-ringer, so as to give due warning before the end is reached, but ordinarily the memory should serve.

## TABULAR WORK.

Without a guide, the learner may at first experience some difficulty in writing figures in rows of columns with accuracy, but an ingenious attachment has been devised whereby all trouble is obviated, and the operator is enabled to do tabular work with rapidity, while the chances of making mistakes are reduced to a minimum. The cut given below will explain its application and working.



The screw in the front of the carriage-frame, which serves as an axle for the front carriage wheel, is removed, and this special scale adjusted in place of the index, or pointer. To use it :—Slip the broad part of the special pointer behind the regular scale on the top of the machine. A little bending or adjusting may be necessary to bring the special scale to a proper angle, and the point of the indicator in a position so that the scale will not strike against it in raising or lowering the carriage. Move the carriage of the machine as far to the right as possible, and slide the special pointer to the centre of the regular scale so that it will point to "O" on the special scale. When in ordinary use it is well to have a blank strip of paper in the groove of the attachment, so that if any short table is to be written, the points and margin may be marked off in pencil. A slip for any kind of statement may thus be prepared with a pencil or the Typewriter. If the operator has several kinds of statements recurring he should keep a slip ready for "cash," etc. Before commencing tabular work, place the required slip in the groove of the attachment and proceed with the work. An additional advantage in using the tabular attachment is that the two scales correspond, both reading from right to left. If the operator has not this attachment the best plan is to write down the figures in order exactly where each column or line begins, and keep it prominently in front of him thus :

| | | | | |
|---|---|---|---|---|
| 5 | 23 | 33 | 57 | 60 |

it will be found a great help.

The pupil may now copy the following exercises :—

:0 : 1:0 : 2:0 : 3:0 : 4:0 : 5:0 : 6:0

THE ORIENTAL REPUBLIC OF URUGUAY

UNIFIED FIVE PER CENT. LOAN of 1883.

For £11,127,000.

SIXTEENTH QUARTERLY DRAWING.

NOTICE is Hereby Given that, in conformity with the stipulations contained in the general bond relating to this Loan, the following NUMBERS of BONDS for payment at par on and after the 1st January next, when the interest thereon will cease, were this day DRAWN, at the offices of Messrs. John Venn and Sons, 2, Pope's Head-alley, Cornhill, London, in the presence of Archibald Balfour Esq., a partner in the firm of Messrs. I. Thomson, T. Bonar, and Co., the Agents for the Loan and of the undersigned notary:

3 Bonds, Nos. Letter A.
173 458 1387 For £1,000 sterling each...£3,000

10 Bonds, Nos. Letter B.
2326 2656 2680 3967 4729 4732 5762
6659 7539 7782 For £500 sterling each.....£5,000

88 Bonds, Nos. Letter C.

| | | | | | | |
|---|---|---|---|---|---|---|
| 10160 | 10370 | 12516 | 12814 | 13147 | 13856 | 14349 |
| 14720 | 15427 | 16050 | 16798 | 16915 | 17118 | 17489 |
| 17578 | 18200 | 19183 | 19309 | 20032 | 21488 | 21490 |
| 22245 | 22564 | 22971 | 25206 | 25324 | 25538 | 25798 |
| 25929 | 26167 | 26327 | 27351 | 28599 | 28355 | 28825 |
| 30367 | 31026 | 31262 | 31788 | 32546 | 35190 | 36047 |
| 36926 | 38465 | 38593 | 41141 | 41162 | 41648 | 41969 |
| 43789 | 44206 | 44217 | 44840 | 44899 | 46056 | 46826 |
| 46937 | 47154 | 47994 | 48368 | 49061 | 49367 | 50031 |
| 50134 | 51383 | 51622 | 51827 | 52470 | 52866 | 53485 |
| 54186 | 54319 | 55533 | 55870 | 56855 | 57008 | 57785 |
| 58241 | 58427 | 58441 | 59523 | 60027 | 60872 | 61289 |
| 62969 | 63995 | 64127 | 64368 | | | |

For £100 sterling each.....£8,800

101 Bonds amounting together to the sum of.....£16,800

(Signed) I.THOMSON, T. BONAR and Co.

Countersigned - W.W.Venn, Jr., Notary Public, 2, Pope's-alley, Cornhill, E.C., and 191, Fleet-street, E.C., London, 1st October, 1887.

## SPECIMEN OF TABULAR WORK.

### INVOICE.

:0 : 1:0 : 2:0 : 3:0 : 4:0 : 5:0 : 6:0 :

85 Mincing Lane.

London. E.C. Nov. 10,1887

Messrs Robertson Bros.

Dr. to Jones, Rose & Clark.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1887. | | | | | | | | |
| Sept. 3 | 1 Butt Sherry X.Y.Z. | @ | £48. | per | Butt | I.B. | 48 | 0 | 0 |
| " " | 1 Hhd. Do old Solera | " | £70 | " | " | " | 35 | " | " |
| " 15 | 1 Pipe Port O.N. | " | £50 | " | Pipe | " | 50 | " | " |
| " " | 5 Qr. Casks Vino de Pasto | " | £80. | " | Butt | " | 100 | " | " |
| " 21 | 30 Doz: Old E.I.G. Sherry | " | 50/- | " | Doz: | " | 75 | " | " |
| " " | 100 Cases each 3 Doz: 1872 Vintage Private Cuvee-Extra Sec | " | 84/- | " | Doz: | D.P. | 420 | " | " |
| " 24 | 20 Hhds. Claret N.T. | " | £20. | " | Hhd. | " | 400 | " | " |
| Oct. 8 | 1 Qr. Cask Brown Sherry | " | £18. | " | Butt | " | 4 | 10 | " |
| " " | 50 Cases each 1 Doz: Pale Brandy Three Star | " | 50/- | " | Case | " | 125 | " | " |
| " 27 | 1 Hhd. Port O.T. | " | £30. | " | Pipe | " | 15 | " | " |
| " " | 1 " Sherry Fine 2 | " | £48. | " | Butt | " | 24 | " | " |
| | | | | | | | £1341 | 10 | " |

D/O's Enclosed Herewith,

With J, R & C's Compliments.

## SPECIMEN OF TABULAR WORK.

## LIST OF STOCKS AND SHARES.

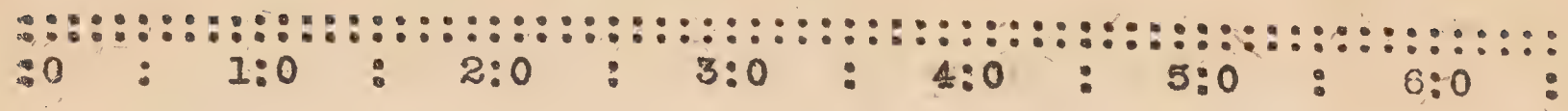
:0 : 1:0 : 2:0 : 3:0 : 4:0 : 5:0 : 6:0 :

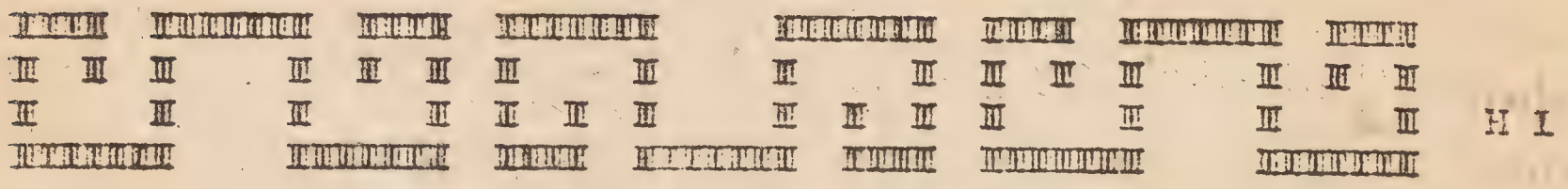
PARIS BOURSE

| | | Yesterday. 3.15 p.m. | To-day. 3.10 p.m. |
|---|---|---|---|
| 3 p.c. Perp. Rentes | money | 80.60 | 80.80 |
| 4½ p.c. Rentes | | 106.60 | 106.55 |
| 3 p.c. Perp. Rentes | account | 80.77½ | 80.70 |
| 4½ p.c. Rentes | ,, | 106.65 | 106.67½ |
| 5 p.c. Italians | ,, | 97.05 | 97.15 |
| Credit Foncier Shares | ,, | 1362.50 | 1375 |
| Ottoman Bank Shares | ,, | 494.37 | 494.37 |
| Suez Canal Shares | ,, | 1987.50 | 1990 |
| Panama Canal Shares | ,, | 293.75 | 295 |
| Rio Tinto Shares | ,, | 264.37 | 268.75 |
| Lombard Railway Shares | ,, | 178.75 | 178.75 |
| Egyptian Unified | ,, | 371.25 | 371.25 |
| Turkish Group IV | ,, | 14 | 13.97½ |
| 4 p.c. Spanish | ,, | 67 | 67 |
| 5 p.c. Russians, 1877 | ,, | 100 | 99⅝ |
| Private discount..... | | | |

BERLIN BOURSE.

| | Yesterday. 2.15 p.m. | To-day. 2.50 p.m. |
|---|---|---|
| 4 per cent. Prussian Consols..... | 106.40 | 106.30 |
| 3½ p.c. Prussian Consols ..... | 100.40 | 100.40 |
| 5 p.c. Egyptian Preference..... | | |
| 4 p.c. Egyptian Unified ..... | 73.90 | 74.10 |
| 5 p.c. Russian, 1862 ..... | 95.30 | 95.25 |
| 5 p.c. Russian, 1871-73..... | 90.75 | 91 |
| 4 p.c. Hungarian Gold Rente | 79.40 | 79.60 |
| 4 p.c. Austrian Gold Rente ..... | 90.50 | 90.75 |
| 5 p.c. Austrian Credit Shares ... | 445 | 447 |
| Deutsche Bank ..... | 158.50 | 158.40 |
| Grand Russian Railway Shares .... | 112.25 | 111.30 |
| Private Discount ..... | 2½ | 2½ |
| Russian Paper Roubles,money ..... | 178.75 | 178.70 |

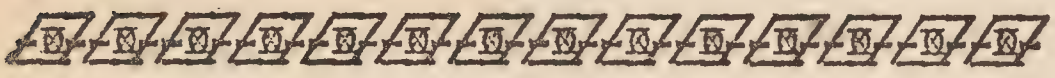


Y A

/ _

M W O X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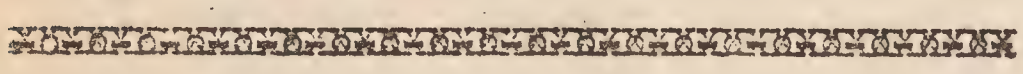
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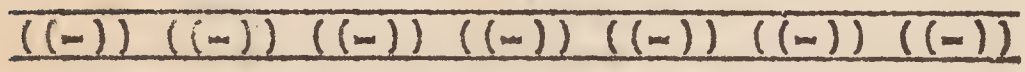
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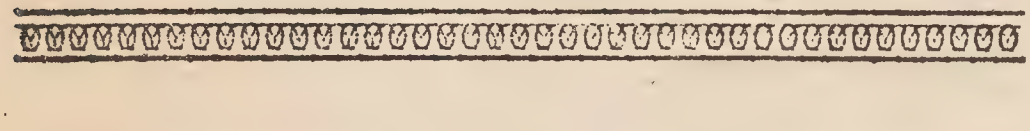
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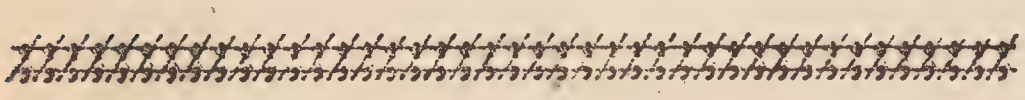
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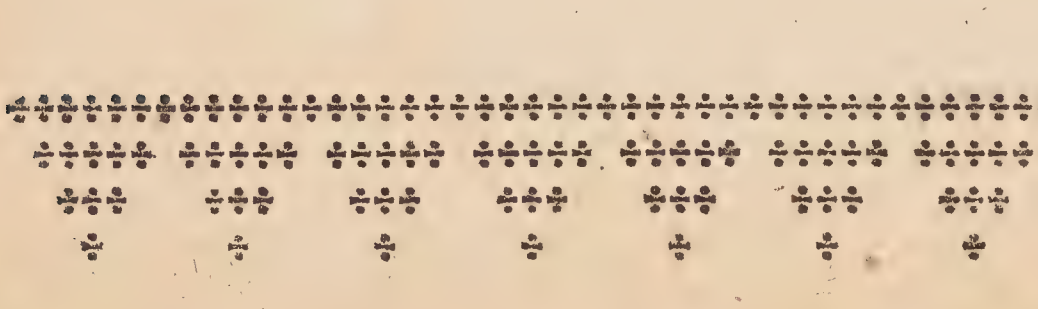
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## Borders and Ornamental Designs.

Many fancy borders and designs can be made by exercising a little ingenuity. On the opposite page a few are shown, and their component parts given. Where one or more have to be written over one another, the space-bar is held down until all have been struck. In using the punctuation and other marks, unless struck very lightly they indent the cylinder. Pretty designs can be made by using several ribbons of different colors. If short pieces of them are pinned together, they are easily used, and less winding of the ribbon is needed.

## Paper.

Any paper can be used for type-writing, but there are some kinds better adapted for the purpose than others. A good hand-made unglazed paper is undoubtedly the best for ordinary use. The writing shows clearly, and an erasure or alteration is less apparent. For legal work a glazed surface is preferable, for the reason that in such work erasures and alterations are not allowable.

Paper specially adapted to type-writing, and of excellent quality is supplied by the manufacturers of the Type-writer.

## Extra Characters.

Extra or "combination" characters can be formed by striking two or more keys, the space-bar being held down while they are struck.

The Pound mark, £, by capital L with the hyphen across it.

The Dollar mark, $, by the two brackets and the capital S.

The "Cedilla", ç, by the comma and the letter c.

The Division mark, ÷, by the colon and hyphen.

The Equal mark, =, by the hyphen repeated, the cylinder being slightly turned when the second is struck.

The Cent. mark, ¢, by the shilling mark and small c.

The Spanish ñ, by turning the cylinder slightly and writing the hyphen above the letter.

The note of exclamation, ! , by the single inverted comma and period.

The semi-colon, ; , by the colon and comma.

The modification mark, ö, by the letter and the quotation mark.

Other combinations will no doubt suggest themselves.

A line can be rapidly drawn as follows :—Throw back the carriage—in machines where the period is in the upper case—and retain it in position by means of the hook and spring in front (see p. 31). Then depress the thumb-piece with the right first finger, so that it raises the rack from the dogs. Hold down the period key with the left hand, and quickly pass the carriage from right to left and back again, when a fine line will be found to have been drawn. This can be regulated from point to point. In the same manner sentences can be underlined by employing the underscore key.

Sometimes it is advisable to raise certain letters, as in M$^{r}$, M$^{c.}$, D$^{r.}$, C$^{r.}$, &c. This is done by merely turning the cylinder towards you.

## CORRECTIONS.

The facility with which corrections can be made in type-written manuscript is a great point in favor of the machine. It is important that the paper should be unglazed, so that the abrasions caused by erasure may not be noticeable. On the other hand the fact that erasures cannot be made on glazed paper is highly esteemed by those who prepare legal documents by the aid of the machine. Errors can usually be *felt* by the experienced operator as soon as made. Before removing a manuscript from the Type-writer it is well to thoroughly examine it, and if a mistake is discovered, the cylinder may be reversed until

the proper spot is reached, and the error rectified. If a letter has to be erased it is better to obliterate the whole word, if it be a short one, by using a Faber's Ink-eraser. These are manufactured in a handy form for Type-writer operators. The cylinder forms an excellent backing for the purpose. The rubbing should be done from side to side and not up and down. After the obliteration of the error the correction can readily be made. It will be found that erasing in this manner covers the type-bar-bearings at the back of the machine with particles of paper. This paper dust should be carefully brushed away daily when cleaning the machine. If the sheet has been removed before the error has been discovered, it can be returned to the machine and the correction made with equal facility. Some little practice is necessary to get the paper exactly into its place. Every operator should test the position of the printed line by turning back the cylinder during practice until the lower part of the letters line exactly with the edge of the carriage paper scale. See that the letters correspond with the scale, *i. e.*, each letter agreeing with the division below and not to the right or left of it. If this is carefully noted the manuscript may be re-inserted with confidence.

Corrections cannot be made accurately if the scale beneath the written line does not correspond with that in front of the machine. The latter is not liable to become shifted, and if the two do not agree attention must be paid to the scale beneath the cylinder. Insert a slip of paper, and write a line of x's at every fifth degree, spacing the rest, thus :—

x x x x x x x x x x x x x x

Then raise the carriage and reverse the cylinder until the letters are exactly above the scale. By slightly loosening the two screws that fasten the side pieces to the upper bar, the scale can be pressed into position, and the

screws again tightened. It will very rarely be necessary to loosen the lower screws.

## Press Copies.

A copying ink must of course be used, information concerning which is given in the portion devoted to Ribbons. The best method to obtain press copies is as follows :—

First place an oil sheet in the letter-book ; on this lay smoothly a damp cloth,* then the tissue leaf of the book, and on the last place the letter to be copied. If the letter be written on one side only, lay another oil sheet on the back of the letter. If the letter is written on both sides, lay it on the book as directed above, and on the back of the letter turn down the next page of the copy-book ; upon that spread a damp cloth, and upon the cloth lay another oil sheet. It should be firmly pressed a minute or two. How damp to make the cloth and how long to permit the book to remain in the press, experience will demonstrate. In taking out the letters, lay dry blotters between the pages of the book, and also between the letters just copied. As many letters can be copied at one time as desired.

## Manifolding.

When more than one copy is needed at a time, the usual and simplest method is to use sheets of carbonized paper. As prepared in this country, carbon paper is apt to smear and smut. The American make is preferable, as, if handled with care, it is free from this objection. It is manufactured in various sizes and in two distinct

---

* Dampened blotters may be used in place of cloth. In this case it is well to have a drawer in the press-table lined with tin, in which to keep the moistened sheets of paper. The sheets should be damped separately and then placed together in the press, and a slight pressure used, so that the moisture shall be evenly distributed. If the paper is too moist it will cause spreading of the ink.

varieties, known respectively as "single" and "double" (or "full") carbon. Single carbon paper has only one carbonized surface. Double (or "full") is blackened on both sides of the sheet, the paper itself being very thin.

When but few copies are required, it is better to use the single carbon, as the reverse side of the paper is kept clean. When many copies are called for, the "double" should be used, and the paper on which the writing is to appear ought to be proportionately thin according to the number of copies needed. An impression is made on both sides of the sheet, and therefore what would otherwise be but a faint mark is increased in density so as to be plainly read.

The plan to be adopted is very simple. The sheets of paper to be written on are placed alternately with carbon paper, and run into the machine, which is operated in the usual way. The first sheet receives the ink impression from the ribbon, and the others are marked by the carbon. It is advisable to strike the keys with greater force, and nothing but experience can teach exactly what this should be. It is not wise to attempt the highest rate of speed when manifolding.

In using the single carbon, care must be taken that the carbonized surface is uppermost.

A recent writer on this subject gives the following admirable hint :—

"A simple method has been discovered for producing perfect alignment in making a large number of manifold copies on the Type-writer. The reason that manifold does not show as good alignment as single copy work is, that when several sheets of paper are placed in the machine, the circumference of the cylinder is increased, thus lowering the point at which the types strike the paper, so that the types from the back of the basket strike higher, and the types from the front lower, than normally. If, there-

fore, the carriage be raised to the same extent as the striking point is lowered, perfect alignment will be obtained. To accomplish this, procure a rubber band about six inches long, and stretch it round the front of the top plate in such a way that the upper half will lie upon the part on which the front wheel of the carriage runs. If the band proves too thick, stretch it more on the top, and let it be slack below, and *vice versa* if you find it too thin. If you still find it too thin, put on an extra band. In this way thirty copies have been made (on tissue paper) in perfect alignment. If it is found that the rubber impedes the movement of the carriage, put a little oil on the surface of the band.

The above does not apply to the No. 3 machine, as the carriage wheels run upon a rod which would not retain the rubber band. Straps of rubber of varying thickness have therefore been designed ending in caps of the same material, which serve to hold them in position. These must be accurately adjusted before beginning work, or they might slip to one side when the carriage had half run its course.

When more than ten copies are needed, the ribbon should be removed, and the writing done wholly with carbon sheets. The first, that receiving the actual blow of the type, should be ordinary thin white paper, which does not take any impression on the right side, but serves to protect the others from injury. Where more than twenty or twenty-five copies are required, they can be obtained by using a ribbon specially prepared for transferring the writing to the ordinary Hektograph pad. The copies are not remarkable for vigor, but good results can be had after practice, if proper attention is paid.

A stencil for reproductions by the Cyclostyle process can be prepared by placing a sheet of silk gauze behind specially prepared Cyclostyle paper, removing the ribbon

and writing in the ordinary way. The force with which the types strike the paper against the gauze backing, is sufficient to produce a stencil, which will give results almost equal to lithography.

Manufacturers of other duplicating processes claim that good reproductions can be had by their several means, but the writer has seen very few satisfactory specimens.

For larger numbers a good plan is to use a ribbon coated with lithographic ink, and to write directly on lithographic transfer paper. It should be placed on the stone with as little delay as possible, for if permitted to remain long the ink may refuse to adhere to the surface of the stone.

Very fine reproductions are now produced by the photo-zincographic process.

## RIBBONS.

The ribbons used in connection with the Type-writer should be of the very best quality. The leading makes are "Underwood's" and "Smith's."

Considerable stir was made by a report that the inks employed were of a fading quality. Investigation proved that this was quite true regarding certain colors ; but, that with other ribbons, the ink was perfectly lasting, both in the original and in the press copy. The Type-writer had been used to a considerable extent by the American Government, and when the report mentioned was first started, a searching investigation was made. It was discovered that the writing done with the so-called "Indelible Ribbon" was of a thoroughly lasting character, but that done with purple, red, green and blue was more or less fugitive.

It is, therefore, necessary that where writing of an important character has to be done on the Type-writer, that the operator should see that the ink employed is

indelible. Type-writer ribbons are made as follows :— Black Record, Purple Record, Blue Record, Green Record, Red Record, Black Copying Purple, Black Copying Green, Purple Copying Purple, Blue Copying Blue, Green Copying Green, Red Copying Red, Smith's Indelible, Underwood's Indelible Official ; and in addition to these, ribbons are prepared for use with the Hektograph pad, and for writing on lithographic transfer paper. Of all this array of ribbons we can only recommend the Smith's Indelible, Underwood's Indelible Official, and the Black Record Ribbon, as being *absolutely indelible.*

It must not be supposed, from what we have said, that the other ribbons are useless. The writer has seen samples of writing and copying done by these twelve years ago, which are to-day as good as when written. The only thing is, that, under certain conditions, the inks mentioned are more or less fugitive. Writing done with the carbon paper is also indelible.

When a ribbon has become exhausted, and a new one is to be substituted, the exhausted one is wound on to the right-hand spool ; it is then unpinned from the left-hand spool, and this end is wound round the ribbon-wheel, which is supplied with the machine. The method of applying the ribbon-wheel is somewhat difficult to describe, although simple enough in itself. We cannot do better than quote the directions given by the Manufacturers :—

"When using it, the carriage should be tipped back; the ribbon-shift-handle pushed as far towards the back of the machine as it will go. Then apply the winder over the front end of the opening in the top-plate on the left side, where the ribbon-guide comes through as follows :

"Loosen the thumb screw at the bottom of the winder standard sufficiently, and holding the standard perpen-

dicular, winder uppermost, and with the crank to the right, drop the foot of the standard through the opening far enough to engage under the top-plate. Swing it one quarter round, bring the crank to the front and the winder square with the machine, draw it forward along to the front end of the opening so that the clamp will hold, and fasten.

"Do not set the screw down very tight, as it will hold firmly without, and setting it too hard may mar the machine.

"The pasteboards upon which the ribbons are to be wound, or from which they are to be unwound, may then be clamped in the winder and turned on or off by the crank.

"Always wind the ribbon on and from off the left-hand spool."

When the ribbon is exhausted of its ink, it may be re-inked at a small charge, by sending it to the manufacturers, providing that it is in good condition, and has not been punched through into holes. However, for those who value the quality of their work, it is better always to employ new ribbons.

## Rubber Bands.

Bands of the best rubber are used to connect the cylinder with the feed-roll. When they become worn and need re-placing, the way to proceed is as follows :—

With the No. 4 machine, raise the carriage, and pull the front shaft (technically known as the front-band-pulley-shaft) forward out of the left hand slot in the carriage frame, in which it rests, sufficiently to permit of the bands being slipped off without loosening the other end. The feed-roll must be removed from its bearings until the bands have been slipped into place, and the shaft carefully returned to its primary position. The bands can then be passed round the feed-roll, and will

stretch enough to allow of its re-adjustment. Do not loosen any screws or disarrange the scale. If this should happen, see "*How to adjust the scales.*" If the paper-guide is found to be in the way, it may be removed and replaced when all is finished.

With the No. 2 machine, raise the carriage and loosen the two small blue-steel screws which hold the shaft (band-pully-shaft), but do not remove them. Only lift the left-hand end out of the slot far enough to be able to slip the bands over. As with the No. 4 machine, the feed-roll must be removed from its bearings and set aside out of the way. Be very careful in replacing the shaft to see that it is pushed back against the end of the slot; and, moreover, in tightening up the little screws do not use much force. They must be just firm enough to hold the shaft.

With the No. 3 machine there will be no difficulty. Pull the bands off and remove the feed-roll. The new bands are then slipped over the pulleys and under the band-shields, the feed-roll passed properly into the loops, and then pulled into place.

Make it a rule never to use any but the best Faber bands.

## ATTACHMENTS.

As with almost every other invention, certain small patents are constantly coming to the front and clustering round the type-writer. Some of them are naturally of questionable value; but the majority are good, and confer a positive gain. It would be unreasonable to expect the manufacturers of a machine to include all of these supplementary attachments, for the simple reason that they have to pay a royalty upon all of them; and, therefore, while it may be galling to have to purchase certain accessories which seem necessary to the complete utility of the machine, it is better to be philosophical about it and be

thankful that they are procurable, although the original inventors did not think of everything. Of course an attachment points out a weak spot, but it also removes a need.

The TABULATED SCALE has already been referred to, and its use explained.

The KNEE-SHIFT is unnecessary to those who have full use of their eyes and hands, although some prefer to adopt it; but for the maimed or blind it is invaluable. Its object is to leave the hands free at all times to operate the keys. In the ordinary way, when the upper-case key is depressed, the right hand alone can be used for writing. By the Knee-shift Attachment the upper-case key can be depressed by a simple outward movement of the right knee, after the manner of the swell in an American organ. There are two kinds of Knee-shift Attachments—the "Pritchard" and the "Southworth." The "Pritchard" is the cheaper, and is perfectly effectual, but it is not elegant, and, moreover, necessitates a hole being bored through the table. The "Southworth," on the contrary, while somewhat more expensive, can be instantly attached to or removed from a machine, and, being nickel-plated, rather adds to the appearance of the Type-writer. Both are worked in the manner described above, and as full instructions accompany them, further description is not called for.

PAPER-STOP.—The Paper-stop is chiefly appreciated by the beginner, who is apt to continue writing after the paper has come to an end. But when the ear is trained to detect the difference in sound it is an easy matter to tell when the paper should be withdrawn. As the sheet becomes exhausted, it is held less tightly round the cylinder, and as a consequence the types strike it with a more hollow sound. The Paper-stop is exceedingly simple in struc-

ture. It consists of a narrow strip of nickel-plated metal, which clamps on the Paper-shelf. It is split, and a small catch, regulated by a screw is made to slide up and down to the required height. After clamping it on the Paper-shelf, a sheet of paper, the required length, is run between the cylinder and the feed-roll until the end is reached. The upper edge will be found to fall against the Paper-stop. The catch is now run into position, which causes the paper to bulge outwards. It follows that every subsequent sheet of paper of similar length will be caught at the same spot, and bulge outwards, thus enabling the operator to know when the last line is reached.

RIBBON SUPPORTS.—(See chapter on Ribbons.)

AUTOMATIC WORD COUNTER.—Several patents have recently been taken out for recording mechanically the number of words in a manuscript of any length. They are, of course, only applications of well-known mechanical counters, but will undoubtedly prove of assistance to those who do work by the piece. They are, comparatively speaking, inexpensive, and can be recommended to those who feel the necessity of such a device.

ENVELOPE GUIDES.—These are only useful to those who have to address envelopes in quantities, and seem to do good service in such cases. They are attached to the same rod to which the ordinary envelope guide is fastened.

DROP CABINET.—This is undoubtedly a capital device for holding the Type-writer in position when needed, and readily disposing of it afterwards, besides offering a certain protection against dust and damp. These Cabinets are made to look like handsome office desks with drawers at the side. Upon raising the lid, and without any extra exertion being called for, the Type-writer comes into position, and is held there as long as needed. The chief beauty of this ingenious arrangement is that the machine is made

to slide at such an angle that it in no way inconveniences the writer from using the Cabinet as a desk. They are hardly, if at all, more expensive than equally well-made pieces of cabinet work without the patent attachment.

LEATHER TRAVELLING CASE.—This has been designed for those who do much travelling, and require to have their Type-writer with them. It is, of course, rather unfortunate that the Type-writer cannot fill all requirements; but, after all, durability is a far better thing than portability, and its size is not such as to preclude its being taken from place to place. The leather case is neatly made, and fastens with a patent lock-strap. With each machine there is usually sold a tin case of very much the same shape as the leather one, but this is not so handy for sending by rail, as it is apt to become dented.

## THE NO. 3 MACHINE.

This Type-writer was designed to meet the demand for a machine that would admit paper of extra width, such as is used by lawyers in making briefs, by insurance companies, and others. The increased length of the carriage, if constructed precisely upon the model of the No. 2 machine, would have added materially to its weight, and some modifications were therefore found to be necessary. After long and costly experiments, the manufacturers evolved this latest and in many respects best Type-writer.

The radical points in which it differs from the popular No. 2 machine are the following:—

1. The rack is reversed, so that its teeth point upward instead of downward.

2. The rack is made to rock, instead of the dogs.

3. The dogs are *above* the rack, and travel along it.

4. In consequence of the construction and action of the dogs, it is possible to push the carriage from left to right

to any point with the hand, without injuring either the rack or the dogs.

5. The carriage is narrower and lighter in proportion.

6. The key-levers have an upper instead of a lower arrangement of springs.

7. The connecting-wires are straighter, are divided, and are joined by small nuts, thus rendering it easier to shorten or lengthen the wire when occasion demands it.

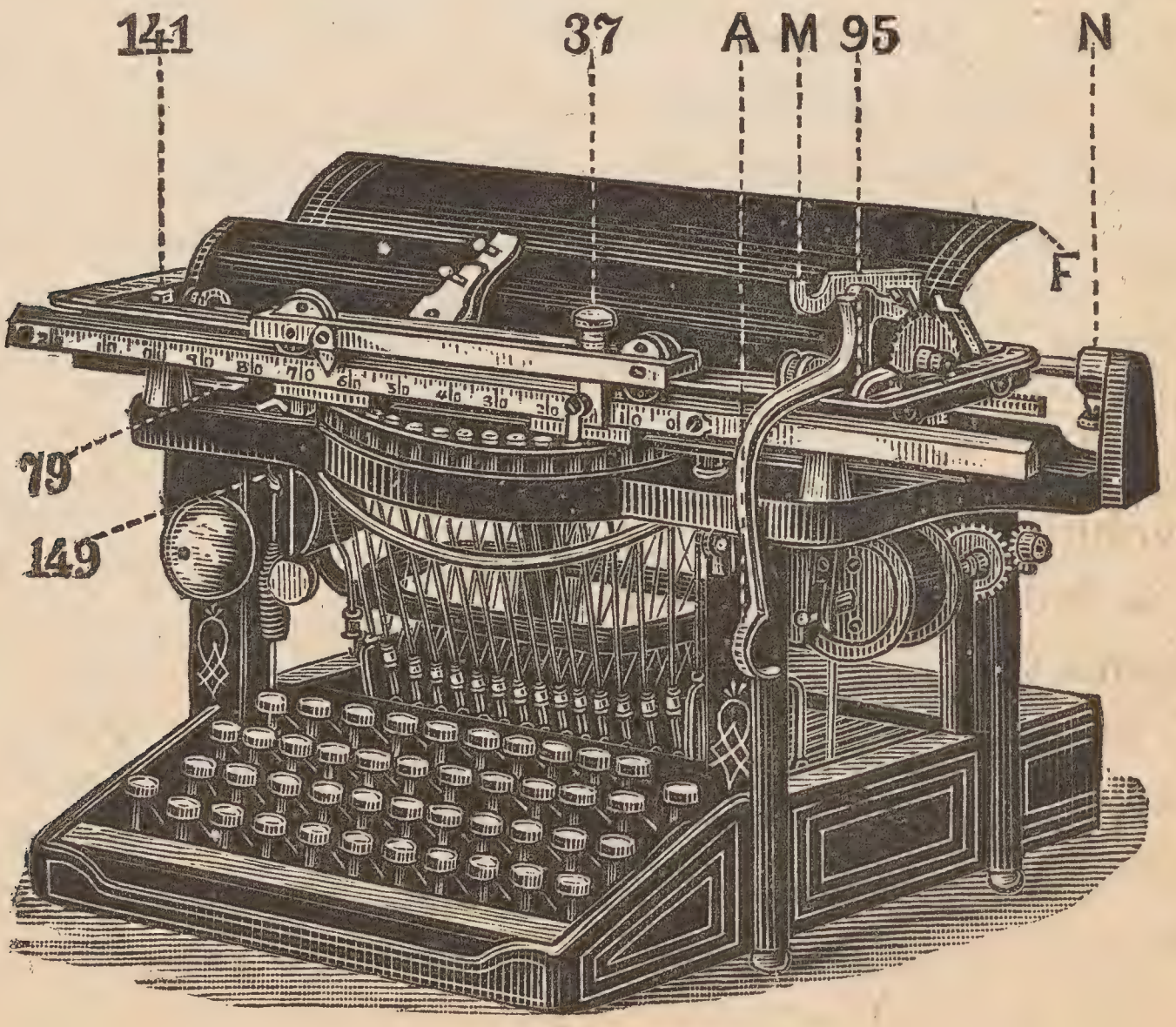
8. It has four extra keys, writing eight additional characters (see page 29).

9. The bell-ringer and the bell are in front, so that they can be seen.

10. It has a line-spacing gauge regulating three widths.

11. The carriage-lever is of different and simpler construction.

In spite of these differences, its general principles are the same; and, with the knowledge of the No. 2 machine, such as can be gained from this book, the learner will have no difficulty in adapting it to the machine now under notice.



## DESCRIPTION OF PARTS.

A. *Carriage-lever*—The chief difference between this and the corresponding lever in the No. 2 machine is that it has no connection with the rack movement. This, however, is not called for, as the carriage moves easily from left to right, the loose dog running over the teeth of the rack with perfect readiness.

M. *Line-space-pawl.*—When the gauge is adjusted the line-space-pawl pushes the cylinder a corresponding number of notches. If the cylinder is to be reversed, it is only necessary to raise the pawl and turn the cylinder with the left hand, as described in an earlier part of this work.

95. *Line-space-gauge.*—This is made in the form of three steps. When pushed as far as it will go to the right, the gauge is at its limit. In order to adjust it to a narrower width raise the carriage-lever and push the gauge toward the left just one notch ; or, if the narrowest width is required, repeat the operation and push it close against the carriage-lever.

F. *Paper-shelf.*—Similar in form and use to that in the No. 2 machine.

N. *Stop-collar.*—The shape of this varies considerably from that in the No. 2 machine. It is simply a small round collar with a thumb-screw underneath. On raising the carriage the back-way-rod will make a quarter revolution, and it will then be seen that the under side of it is indented with holes at even distances apart. The thumb-screw when properly adjusted rests firmly in one of these holes, and thus is prevented from being knocked out of place by a sudden return of the carriage. In adjusting the collar it is as well to raise the carriage, so that the operator may be enabled to see what he is doing.

37. *The bell-ringer-thumb-screw.*—The bell-ringer can be adjusted to ring before the end of the line is reached by loosening the screw, sliding the bell-ringer along the groove toward the left, and re-fastening it at the required spot.

141. *Thumb-piece for raising the Dog-frame.*—This corresponds to the thumb-piece for raising the RACK-frame in the No. 2 machine. It is useful when the carriage has to be shifted from right to left. It need not be used, as mentioned, in pushing the carriage from left to right.

79. *Carriage-stop.*

149. *Carriage-shifter.*—The spring in front will be seen to be fastened to a hook, as in the No. 2 machine; which, when pushed backwards, will hold the carriage so that only the upper-case characters will print.

Instructions for regulating the dogs will be found under the head of "The Dogs, and how to adjust them."

THE RIBBON SUPPORTS.—These will be found to extend considerably beyond the type-bar circle, and therefore tend to keep the ribbon from curling. They can be easily shifted backward or forward with the hands. As they work independently, they must be attended to separately. The handle operating the ribbon movement is, in this machine, situated at the back of the mainspring on the left-hand side of the machine. A small catch holds it in place. (See No. 2 machine.)

To change the rubber bands, see "Chapter on Rubber Bands."

NARROW PAPER.—To use narrow paper on this machine, raise the carriage and slip the stop-collar to its last notch, directly over the type-bars. Loosen the lower screw of the envelope guide and move it along toward the right until it is over the yokes. Then fasten. The paper must be inserted at the extreme right-hand end of the cylinder,

so that one edge of the paper is held by the rubber band and the other edge by the envelope guide. The bell-ringer is fastened at the right end of the groove in which it works.

If any of the little nuts holding the connecting wires should work loose, they should at once be tightened.

As the yokes in this machine are of necessity longer than those of the No. 2 machine, greater care must be paid to the rules laid down, namely, that the carriage-shift-rod on either side of which they work must be oiled daily.

In all other respects the instructions herein given for the No. 2 will apply equally to the No. 3 Remington.

## Care of the Type-writer.

It is an easy matter to keep the Type-writer clean and in working order, but many operators neglect to do so. With the Type-writer, as with other machines, a certain amount of oil is necessary, but too much oil becomes a source of trouble by collecting the dust, and defeats the end for which it was applied. The average operator ignores this, and keeps his machine in such a dirty state that it is a wonder that it writes at all. It may be stated as a truism, that dust and excessive oil are the two great enemies of the Type-writer. Primarily dust. Prevention is better than cure, and it stands to reason that it is better to keep dust away from the machine than to have to remove it. With each Type-writer a metal cover is provided, but this is not absolutely dust-proof. It is better to provide oneself with an india-rubber cover. These can be easily placed over, and tucked under the machine when it is not in use; and in addition to this, they fold, so as to go into a very small compass. In spite of all protection, however, the machine will become dusty, and a rough daily cleaning is advisable.

To remove the dust the operator had better be provided with a piece of wash-leather, some soft rag, and two brushes. One of the brushes must be long-handled, and provided with hog's bristles; the other, a good stout nail-brush, having a handle. Every morning, before beginning work, the operator should thoroughly dust the machine with a clean, soft rag. The second operation is to remove the dust in the more intricate parts of the machine with the long-handled hog's bristle brush. The nickel-plated portions of the machine should then be carefully wiped with the wash-leather, and finally the type cleaned with the nail-brush. The best way to clean the type is to take them in their regular order, depressing a key with the right hand, so as to raise the bar into position, and then, while holding it with the thumb and first finger of the left hand (so as not to bend the bar), strike the face of the type with the bristles of the brush with a downward motion, and brush as usual afterwards. Where the type is very much clogged with dirt and ink, it may occasionally be advisable to use the point of a darning needle; and in extreme cases the whole type may be leaned by saturating the end of the nail-brush with benzine. Care must, however, be used when doing this to entirely remove the benzine, as otherwise rust may ensue. It is advisable to use a trace of "cleaning oil" after the employment of benzine, but care must be taken to use this in such small quantities that it will not attract dust. We have said that next to dust excessive oil is the greatest enemy of the Type-writer. It is so, because it attracts and holds dust. The only oil suitable for Type-writers is that used by clockmakers, which is made from the head of the porpoise. This is put up in small bottles, and sold by the manufacturers of the Type-writer; and some idea may be formed as to the small amount which should be used, when it is stated that an ounce is sufficient

for ten years' use, unless we take into calculation that used upon the front rod. This brings us to the question of daily oiling this particular part of the machine. In the earlier Type-writers it was not so important, but now that yokes are employed on either side of the front rod there is a certain amount of friction which must be guarded against. This can only be overcome by the *daily* application of a little oil, placed upon a rag, with which the front rod must be wiped. No portion of the machine where wood is used should ever be oiled. The only parts of the machine which require oiling, and these but occasionally, are the loose dog and the teeth of the rack. Great care must be taken to keep the dogs free from dust, and for this purpose it is well to use the hog-bristle brush before applying the oil. A drop is usually sufficient. To oil the teeth of the rack, the best plan is to place a drop of oil upon the first finger, and then, raising the rack with the other hand, pass the finger along the under side of the teeth. If any of the type-bars should at any time work stiffly, (which is of very rare occurrence,) merely brushing them with the brush used to apply the cleaning oil will be found to be amply sufficient. The clock-oil must not be used for this purpose.

A careless operator, or one with too heavy a touch, will rapidly injure the surface of the hard rubber cylinder, and in a previous paragraph we have suggested the use of a piece of "Backing Paper." In time, however, even with the greatest care, the cylinder must of necessity become worn. Instead of purchasing an entirely new cylinder, the old one can be re-covered by the manufacturers for a very small sum.

The general appearance of the Type-writer gives a very good indication of the operator's character. An ill-kept and neglected machine is almost sure to belong to a careless and slovenly operator, and his work will in all probability correspond with his machine.

## REGULATING THE TENSION.

It is very important that both the carriage and finger-key tension should be adjusted to the touch of the operator. If the pupil has gone carefully over the earlier chapters of this book, and thoroughly understands the working parts of the machine, it will be easy to explain to him how these tensions are to be regulated.

THE CARRIAGE TENSION.—This refers to the tension of the spring which draws the carriage from left to right. It will readily be seen that if this is wound too tight it would communicate a jerky motion to the carriage, and would also increase the wear and tear of the dogs and rack. Indeed, if the two tensions are not so adjusted as to work in harmony, the carriage will fail to move. If the carriage tension appears to be either too strong or too weak, perhaps the best plan is to let down the main-spring entirely, by working the handle of the "tension-pawl" (fig. 30, Plate 2,) up and down, until the large nickel-plated ratchet-wheel ceases to revolve. Then wind it up by the handle, (fig. 20, Plate 2,) giving it two-and-a-quarter revolutions. This will generally be found to be right, but if it is not sufficient, give it another quarter turn; or if too strong, let it down a little by the before-mentioned "tension-pawl." The carriage tension should be as light as possible, as it will add to the life of the Type-writer, and the labor of working will be diminished.

THE KEY TENSION.—This refers to the tension of the spring at the back of the machine which throws the dogs back into position after a key has been depressed (fig. 80, Plate 2). This is regulated by the thumb-screw of the tension-collar (fig. 130, Plate 2). To increase the tension, loosen this thumb-screw just half a turn, holding it between the finger and thumb so that it may not slip, and press it upwards as far as is required, and while so hold-

ing it, tighten it firmly so that it may not work loose. If the tension should be lighter, proceed as before; but instead of raising it while the screw is loose, lower it and then tighten. It will be found that a very slight alteration of this tension will make a great difference in the force required to depress the keys, therefore considerable care must be used. The pupil must not despair if at his first attempt to regulate these tensions his efforts seem to result in hopeless trouble. Let him persevere, following the directions as here given, and doing nothing else than that set down, and he will soon master the arrangement, and will thereafter feel a sense of security, because he will be master of the "vital part," as it were, of his machine. And with the increased knowledge there will come a still greater affection for the Type-writer, and an increased appreciation of its exquisite simplicity. If the machine is kept in good order, is daily freed from dust, oiled in the right places, and is innocent of oil where oil should not be, there will seldom be any occasion to meddle with either of the tensions from year's end to year's end. But one must write for the careless, for they are the majority.

## THE DOGS, AND HOW TO ADJUST THEM.

It is most important that the operator of the Type-writer should thoroughly understand this part of his machine, so that he may not have to call in a repairer to perform a trifling matter which he himself could do in a minute if he had the requisite knowledge.

In a former chapter the position, action and use of the dogs has been described. If the machine under examination is a No. 2 Remington the pupil should refer to Plate 2. The loose dog is shown at fig. 60. The rigid dog at fig. 70. It will be remembered that while the latter holds

the rack by one tooth the loose dog is thrown backward by a small spring, ready at a movement of the rocker to slip between that tooth and the next. But supposing that for some cause or other the loose dog was allowed to fall back a little too far, or not far enough, it must be plain that it would strike against a tooth of the rack instead of slipping between the teeth. This is precisely what may happen, and can be instantly corrected.

A "stop," called the "loose-dog-stop," regulates the distance to which the loose dog is thrown back, (fig. 150, Plate 2,) and is held in place by the screw, fig. 140. If this screw is *slightly* loosened, the dog-stop can be shifted to the right or left, thus altering the whole position of the dog. As the operation calls for some nicety it is better to place a scrap of white paper at the back of the dogs in order that the operator may be the better able to see what he is doing. If it is borne in mind that the loose dog must be seen evenly disposed between the tooth of the rack being held by the rigid-dog, and the one following, there will be no difficulty. Be sure only to loosen the loose-dog-stop-screw slightly ; and, holding the screw-driver still against it, adjust the dog , then with a single turn of the wrist it can be tightened. It may be found that the act of tightening the screw draws the loose-dog somewhat towards the right, and throws it out of position. This must be allowed for. Brush the dogs free of dust, and, if necessary, apply the smallest drop of "Nye's clock oil" to the working part. Do not meddle with the little spring which throws the loose-dog backwards.

In the No. 3 machine the loose-dog can be very easily adjusted, as it is hidden by no other part of the machine. It is held in place by a screw, which can be turned by means of a screw-driver, so as to fall exactly in its proper place in the rack. For general instructions, see those given above for the No. 2 machine.

## REPAIRING THE TYPE-WRITER.

This chapter is addressed only to those who have some mechanical knowledge and skill, or to those who possess Type-writers, but who live at the circumferences of civilization, and are therefore unable to send their machines to the proper quarters, should anything get out of working order. *The ordinary possessor of a Type-writer is strongly warned not to tamper with his machine.* Let it be set down here as an aphorism that the life of a Type-writer depends on its operator. There is nothing strange in this, for does not the existence of any piece of mechanism rest with its worker rather than its maker? Take the piano for instance. A little child can pound the life out of it in a year, while in the hands of a master it would in the same time, merely have grown mellower and sweeter in tone. There are many points of resemblance between the piano and the Type-writer. Both are operated by the aid of keys; with both, delicacy of touch produces the best results; with both, nimbleness of finger is called for; and, as has been mentioned, the life of both depends upon the manner in which they are used. Then, touching the matter of alignment. There are some unreasonable people who overlook the fact that in pieces of mechanism of precision there must of necessity be occasional adjustment. Would one expect a piano never to need tuning, or a watch never to require regulating? Yet there are possessors of Type-writers who complain because the machine after having done good and faithful work, and having borne much ill-treatment, needs to be re-aligned.

This chapter is open to all, but it is only addressed to the few. If the many get at it, the professional repairers will have a busy time. If, however, to the following instructions there is added an ounce of good solid old-fashioned commonplace *brains* there will be no trouble.

Rest assured if things go wrong the instructions are not to blame, but there will be an ingredient lacking.

If proper care and attention are bestowed on the Type-writer, it will do its work accurately and well for years without requiring skilled labor. This should be a consolation to the good, and a warning to the evil. Nevertheless, time and wear will detract from its working qualities, and here it is that the repairer must step in, or lacking that, the operator must wed his ingenuity to the following instructions and do the best he can.

*If the paper does not run straight*, it will be found that one or both of the rubber bands are twisted, or are out of their bearings. This may sometimes happen after the feed-roll has been removed from and returned to its place in the machine. Examination will show that the shafts at the ends of the feed-roll are of unequal length. Remember that the *longer* end must be at the *right*-hand side. If reversed, the trouble spoken of will invariably arise.

*If the carriage refuses to move when it has been returned to its first position*, the collar (fig. N, Plate 1) may have been screwed tightly against the casting, or may be loose ; or else the small plated screw fastening the carriage-strap to the carriage may have become shifted so that it presses against the carriage-rod. This of course can be loosened by a screw-driver. Or it may result from one of the following causes :—

1. The "loose-dog" may be out of adjustment. See chapter on "The Dogs, and How to Adjust Them."

2. The connecting-rods attached to the "Universal-bar" under the machine may have become detached. (See p. 22.) If so the carriage will work to, say 35, and then stick. Take off the "Universal-bar," loosen the connecting-rods so that when it is put in place again, the finger-key-levers will just escape touching it.

3. The Tensions may not correspond. (See chapter on "Regulating the Tensions.")

4. In the No. 2 machine, and in the No. 3 machine, where the precaution has not been taken to oil the front rod daily, the constant wearing of the *yokes upon the front rod may cause the carriage to stick. *It will not be wise for the operator to attempt the alteration unless he is first convinced that they are the actual cause.* If so, let him look along the rod while moving the carriage from end to end, and note carefully on which side of the front rod the yokes bind. Having discovered it, let him loosen both yokes *on that side only*, and see if the carriage runs easily then. If not, let him place a thin piece of paper over the rod, lower the carriage, and then tighten the yokes, keeping the paper between them and the rod, so as to allow of some *little* play. This has to be done with considerable care. He may *then* test the yokes on the other side of the rod in a similar manner, repeating the remainder of the operation as already given.

In the No. 3 machine the carriage may sometimes stick when a particular key is struck by the point of the connecting wire catching on the inside of the upper-plate. It may be bent outwards with flat pliers, *keeping it square so that it pulls evenly.*

There may of course be other reasons, but as they probably will arise from some serious misadventure to the machine, it will be wiser for the operator at all costs to have it attended to by a competent mechanic.

*One letter writes over another.*—1. The most general cause is the want of oil on the front rod. It is essential that the oiling should be done daily, if only to lessen the wear and tear upon the yokes.

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* The yokes are the small pieces of nickel-plated metal attached to the carriage, which slide along on either side of the front rod.

2. The loose dog may be clogged with oil and dust. If so, clean it carefully with "cleaning oil"—a commercial combination of benzine and some pure kind of oil—applied with a suitable bristle brush. Wipe off the surplus oil.

3. The loose dog may have worked slightly out of adjustment. If so, see "The Dogs, and How to Adjust Them."

4. The tension of the carriage or the dogs, or both, may require attention. If so, see "Regulating the Tensions."

5. The carriage-shift-rod, *i.e.*, the rod on the top of the machine, which on the pressure of the upper-case-key shifts the carriage backwards, and which has been here styled the "front rod"—may be loose. If this is the case, tighten the two screws that hold it in place.

6. The back-way-rod may be clogged with an accumulation of dust and oil. No oil should be used upon this part of the machine, but it must be kept dry and bright. It should be carefully rubbed each day with wash leather.

*Capitals higher or lower than the small letters.*—This will call for as great, if not greater care in correcting than in the adjustment of a type-bar. By examining the machine it will be seen that the uprights holding the carriage-shift-rod (*i.e.*, the front rod) are stopped upon being thrown backward, when the upper-case-key is depressed, by two little oblong pieces of nickel-plated metal, which are held in place by screws. These are known as the upper-case-shift-stops. (The operator is warned against loosening the screws of these stops unless it is absolutely necessary.) These stops and the uprights of the carriage-shift-rail work inside two elongated oval-shaped pieces of nickel-plated metal, which are also held in position by similar screws, and are known as the lower-case-shift-stops. The lower-case-shift-stops must not be moved except by a thoroughly experienced repairer.

If the capital letter prints below the line it is proof that the carriage-shift-rail is not allowed sufficient play, and that the upper-case-shift-stop needs moving from you. To do this, loosen the screw holding the left-hand upper-case-shift-stop just enough that it can be moved *slightly* by inserting a small screw-driver between the stop and the upright of the carriage-shift-rail, and use this as a kind of lever, not up and down, but from side to side. Then tighten the screw when you think it has been moved sufficiently. Now loosen the other screw in the right upper-case-shift-stop. Press the upper-case-key, raise the carriage and tighten the screw. Then test a capital with its small letter as—Nn Nn Nn.

It may have to be shifted by the inexperienced several times. Remember if the capital is above the line the upper-case-shift-stops have to be moved *toward you ; if below, from you.*

*It must be distinctly understood that the above instructions refer only to a case where the* ENTIRE *capitals will not align with each other, or are higher or lower than the small letters, and* NOT *where a single capital is too high or too low.*

## ALIGNING.

The aligning of a Type-writer is a very delicate matter, and at the factories is entrusted to highly skilled workmen. It is a branch of the business distinct from others, and cannot therefore be managed with ease by the tyro. Nevertheless, it is in itself simple, and merely requires care, a fine touch, and patience, and may be accomplished by those who will take the trouble to follow the directions here given, in every particular. The reason for non-alignment should first be understood. It is caused by the bar carrying the type being pushed slightly to the right or to the left by the loosening of the screw, or from its

having become somewhat bent by an accident. The only instrument needed is a small screw-driver to loosen these screws sufficiently to permit the type-bars to be worked into place.

Bear in mind that the least movement of a type-bar at its bearings is greatly exaggerated at the end where the type is fixed. Do not attempt to align a machine before impressing the following rule on the memory, and under no condition allow yourself to break or disregard it. *Never pass from one letter to another until the one is perfectly adjusted, and be sure that the screw is well secured so that it cannot slip out of place again.* It is better when aligning a machine, first of all to remove the two rubber feet from the back posts, as by this means the Type-writer is inclined backward, and the carriage is less likely to fall forward. The screw-driver should be small, so that it can be retained in the right hand during all operations. The ribbon must be pushed aside each time to permit of the type-bar being held by the fingers of the left hand, and as each test is made after shifting the type-bar it is brought quickly into position again by turning the right-hand ribbon spool with the fingers instead of winding it by the handle. Tighten the screw *each* time before testing. A piece of paper should be run into the machine, so that the result of every movement of a type-bar can be tried at once.

It is a good plan when you think you have succeeded in getting a letter into correct alignment to hold down the space-bar while you strike the letter in question, and also that with which you have been aligning it. In this way one letter is written over the other. If they are not in their correct positions, it will then become more apparent, as instead of being directly on the same spot the one will appear either to the right or to the left of the other, or above or below, as the case may be.

The plan adopted should be as follows :—

1. Use the letter "n" as the one by which to align the rest.

2. Ascertain the exact position of the letter you wish to place in alignment by writing it alternately with the letter "n," as

nbnbnbnbnbnbn nrnrnrnrnrnrnrnrnrnr

nonononononononono

If it is out of alignment it will appear as—

$n\,b\,n\,b\,n$ or $n\,b\,n\,b\,n$ $n\,r\,n\,r\,n$ or

$n^r\,n^r\,n$ $n^o\,n^o\,n$ or $n_o\,n_o\,n$

3. Raise the letter to be aligned by depressing the key, and, pushing the ribbon slightly aside, grasp the bar lightly with the fingers of the left hand. Now carefully loosen the screw holding the type-bar in place ; but care must be taken to do so only just enough that by a *slight* pressure of the fingers the type-bar itself can be delicately moved. If the letter to be aligned is above the line, press the type-bar slightly from you, and then tighten the screw before testing.

4. If the letter to be aligned is below the line, draw the type-bar slightly towards you. It may be necessary to move the type-bar a number of times before you get it right.

5. If a letter crowds too much to the right or to the left as the "s" in "course," it is easy to ascertain which letter is at fault by trying the letters in its vicinity with the letter "n," as, rnrnrnrn sn sn enen. It will here be seen that it is the "s" that is out of position. With the letter "s" the type-bar will have to be slightly pulled out or pushed in after the screw has been loosened, and not pushed from you or drawn towards you as for a letter below or above the line. Whether a letter has to be pulled or pushed, or pressed on one side, will depend on the position of the type in the circle of type-bars. It must

be borne in mind throughout all these operations that scarcely more force is to be used than in regulating a watch.

This is all that is necessary for the operator to know, and if he is forced to attend to his own machine in this matter he will find very little trouble after sufficient practice, but a considerable amount at the beginning.

Do not forget the rule given above. *Never pass from one letter to another until the one is perfectly adjusted, and be sure that the screw is well secured so that it cannot slip out of place again.*

## SPELLING.

To some the vagaries of English orthography present little or no trouble, to others it would seem as though no amount of drilling would ever help them. The utter absurdity of the present system, or lack of system, becomes painfully apparent to those who have ever tried to teach a poor speller. No sooner is a rule found, than the list of exceptions upset it; and one is tempted to give the exceptions first, and to teach the rule as an after-thought. Many of our cleverest writers have been execrable spellers; and yet, in spite of this, the fault of incorrect spelling is invariably ascribed to an imperfect education. There is but one way to learn, and that is by sight, not by sound. For this reason it is a mistake for any work on the subject to give the possible errors in print, as this only serves to confuse the eye, and therefore the mind. The Type-writer is calculated to assist in educating the public in spelling, since a printed word retains its form, and errors are more readily detected.

The pupil is strongly advised to commit to memory the few rules here given, and to go over the list of words appended until familiar with them. For future practice let him copy from any standard work, never passing any

error he may make, but paying strict attention to it, so as to avoid its repetition. Writing from dictation may then be tried, care being taken to compare the copy with the original.

## Rules for Spelling.

1.—A final *e* is dropped before a suffix beginning with a vowel; such as—*able*, *ible*, *ish*, *y*, *ance*, *ence*, *al*, etc.

| | | | |
|---|---|---|---|
| Love | loving | | lovable. |
| Sense | | | sensible. |
| White | whitish. | Ice | icy. |
| Idle | idly. | Guide | guidance. |

### Exceptions.

| | | | |
|---|---|---|---|
| Dye | dyeing. | Hoe | hoeing. |
| Shoe | shoeing. | Singe | singeing. |
| Tinge | tingeing. | | |

*All* words ending in *ce* or *ge* retain *e* before *able*, *ably*, and *ous*.

| | | | |
|---|---|---|---|
| Change | changeable. | Peace | peaceable. |
| Outrage | outrageous. | | |

2.—Words ending in silent *e* change *e* into *i* before *fy* and *ty*.

| | | | |
|---|---|---|---|
| Austere | austerity. | Ample | amplify. |
| Mode | modify. | | |

### Exceptions.

| | | | |
|---|---|---|---|
| Safe | safety. | Sure | surety. |

3.—Words ending in silent *e* generally retain it before *full*, *less*, *ly*, *ment*, and *some*.

| | | | |
|---|---|---|---|
| Distaste | distasteful. | Care | careless. |
| Grave | gravely. | Manage | management. |

### Exceptions.

| | | | |
|---|---|---|---|
| Noble | nobly. | True | truly. |
| Whole | wholly. | | |

4.—A final *y* PRECEDED BY A CONSONANT in words of of more than one syllable is changed into *i* when any other syllable than *ing*, *ish*, or *ist* is added.

| | | |
|---|---|---|
| Pity | pitying | pitied. |
| Study | studying | studied. |

5.—Words ending in *ie* change their vowels into *y* before *ing*.

Die dying, &c.

6.—In words containing the diphthongs *ei*, or *ie*, *e* almost always follows *c*, as

| | | | |
|---|---|---|---|
| Receive. | Deceive. | Perceive. | Conceive. |

While with other letters the order is *ie*, as

| | | | |
|---|---|---|---|
| Relieve. | Grieve. | Thief. | Pierce. |

EXCEPTIONS.

When the diphthong has the sound of *ay* or *ey*, *e* always precedes the *i*.

| | | |
|---|---|---|
| Feint. | Freight. | Their. |

7.—In monosyllables and words accented on the last syllable, a final consonant following a single vowel is doubled before an additional syllable beginning with a vowel.

| | | |
|---|---|---|
| Fog | foggy. | |
| Beg | beggar | begging. |
| Hem | hemming. | |
| Mud | muddy. | |
| Rob | robber | robbery. |
| Refer | referring. | |
| Submit | submitting. | |

8.—Words ending in any double letter except *l* retain the double letter before *ful*, *ex*, *less* and *ness*.

| | |
|---|---|
| Gross | grossly. |
| Success | successful. |

9.—Full, when used as a suffix, drops one *l*.

Armful.
Awful.
Skilful.
Spoonful.

These are not all the rules, but they are those which admit of the fewest exceptions. A list of words most troublesome to remember is here appended.

## Words of Similar Pronunciation Frequently Misspelled.

| | |
|---|---|
| Accept | To take, to receive. |
| Except | To leave out. |
| Access | An approach. |
| Excess | More than enough. |
| Accidents | Unexpected events. |
| Accidence | Rudiments of grammar. |
| Advice | Counsel. |
| Advise | To give advice. |
| Affable | Ready to converse. |
| Effable | Utterable. |
| Affect | To move the passions. |
| Effect | Consequence. |
| Assay | To test, to try. |
| Essay | To attempt. |
| Boar | A male swine. |
| Boor | A clownish person. |
| Boarder | One who boards. |
| Border | A boundary. |
| Borne | Carried. |
| Born | Brought into life. |
| Capitol | A public edifice. |
| Capital | Principal, chief. |
| Carat | A small weight. |
| Caret | A mark in writing. |

| | |
|---|---|
| Censor | A critic. |
| Censure | Blame. |
| Cloth | A texture of wool, &c. |
| Clothe | To dress. |
| Consort | A companion. |
| Concert | Union, combination |
| Concur | To agree. |
| Conquer | To overcome. |
| Conformation | Shape. |
| Confirmation | Strengthening. |
| Corporal | An officer. |
| Corporeal | Not spiritual. |
| Correspondents | Persons who correspond. |
| Correspondence | Agreement. Congruity. |
| Counsel | Advice. |
| Council | An assembly. |
| Critique | A criticism |
| Critic | A judge of literature. |
| Current | Flowing. |
| Currant | A dried fruit. |
| Decease | Death. |
| Disease | Sickness. |
| Deference | Respect |
| Difference | Disagreement. |
| Deformity | Unsightly shape. |
| Difformity | Variety of form. |
| Descent | A going down. |
| Dissent | Disagreement. |
| Desert | To forsake. |
| Dessert | Fruit, etc., after dinner. |
| Device | Contrivance. |
| Devise | To contrive. |
| Diverse | Different. |
| Divers | Several. |
| Dose | A portion of medicine. |

| | |
|---|---|
| Doze | To slumber. |
| Either | One of the two. |
| Ether | A volatile fluid. |
| Elicit | To draw out. |
| Illicit | Unlawful. |
| Elude | To escape from. |
| Illude | To deceive. |
| Emanant | Flowing from. |
| Eminent | Conspicuous, noted. |
| Eminent | High, exalted. |
| Imminent | Threatening. |
| Eruption | A breaking out. |
| Irruption | A breaking into. |
| Exorcise | To cast out evil spirits. |
| Exercise | Employment. |
| Extant | In being. |
| Extent | Space, length. |
| Foment | To excite. |
| Ferment | To work as beer. |
| Formally | Ceremoniously. |
| Formerly | In times past. |
| Galop | A dance. |
| Gallop | Quick movement. |
| Gambol | A frolic. |
| Gamble | To practice gaming. |
| Genius | A peculiar talent. |
| Genus | A kind. |
| Gluttonous | Greedy. |
| Glutinous | Gluey. |
| Grander | More grand. |
| Grandeur | Magnificence. |
| Greece | A country in Europe. |
| Grease | To smear with grease. |
| Grove | A small wood. |
| Groove | A channel. |

| | |
|---|---|
| Hoarse | Having a rough voice. |
| Horse | An animal. |
| Hire | Wages. |
| Higher | Loftier. |
| Impostor | A deceiver. |
| Imposture | A cheat. |
| Incite | To urge. |
| Insight | Discernment. |
| Ingenious | Skilful. |
| Ingenuous | Open, candid. |
| Legislator | A lawgiver. |
| Legislature | An assembly which enacts laws. |
| Lineament | A feature. |
| Liniment | An ointment. |
| Loath | Unwilling. |
| Loathe | To dislike. |
| Loose | Slack. |
| Lose | To be deprived of. |
| Lyre | A musical instrument. |
| Liar | A teller of lies. |
| Medal | A piece of metal stamped like a coin. |
| Meddle | To interfere. |
| Mettle | Spirit, courage. |
| Metal | Iron, silver, &c. |
| Missile | Thrown by the hand. |
| Missal | A mass book. |
| Mourn | To lament. |
| Morn | Morning. |
| Neither | Not either. |
| Nether | Lower. |
| Ordinance | A law. |
| Ordnance | Cannon. |
| Palate | The roof of the mouth. |
| Pallet | A little bed. |
| Palette | A thin oval board on which painters mix their colors. |

| | |
|---|---|
| Petition | Supplication. |
| Partition | Separation. |
| Plaintiff | The complainant. |
| Plaintive | Complaining. |
| Populace | The common people. |
| Populous | Full of people. |
| Precedent | An example. |
| President | A governor. |
| Principle | Elementary part. |
| Principal | Chief. |
| Quota | A proper share. |
| Quoter | One who quotes. |
| Rabbet | A joint in carpentry. |
| Rabbit | A small animal. |
| Radish | An edible root. |
| Reddish | Somewhat red. |
| Real | True, genuine. |
| Reel | To stagger. |
| Relict | A widow. |
| Relic | That which remains. |
| Salary | Wages. |
| Celery | A vegetable. |
| Sculptor | A carver. |
| Sculpture | Carved work. |
| Stationary | Fixed. |
| Stationery | Writing materials. |
| Statute | A law. |
| Statue | An image. |
| Stature | Height of a person. |
| Surplus | Remainder. |
| Surplice | A white robe |
| Symbol | A sign, a type. |
| Cymbal | A musical instrument. |
| There | In that place. |
| Their | Belonging to them. |
| Treatise | An essay. |

| | |
|---|---|
| Treaties | The plural of treaty. |
| Whether | Which of the two. |
| Whither | To what place. |

## Words Frequently Misspelled.

A.

Acknowledgment.
Accommodation.

C.

Cancelling.
Concede.
Committee.
Conscientious.
College.
Complete.
Crystal.
Chrysalis.

D.

Dulness.
Diligent.
Diarrhœa.
Dyspepsia.

E.

Eighth.
Extreme.

F.

Fuchsia.

G.

Gauge.

H.

Harassed.
Homeopathy.
Height.

I.

Intelligent.

J.

Judgment.

N.

Necessary.
Necessarily.

P.

Parallel.
Precede.
Privilege.

R.

Referred.
Reference.
Recommend.
Religious.

S.

Speciality.
Separate.
Supersede.
Sacriligious.

V.

Violoncello.
Village.
Villain.

Capital letters should be used for—

1.—Beginning the first word of a book, chapter, paragraph, or sentence.

2.—Names of God and Christ, as—Creator, the Supreme Being, Saviour, etc.

3.—The pronouns referring to God and Christ (by some writers).

4.—Titles of honor, as—Her Majesty, the Queen, the President of the United States.

5.—All proper names, as—Henry, England, Thames, Good Friday, &c.

6.—The names of objects personified, as—a German, Christianize, French, Elizabethan, &c.

7.—The pronoun I, and the interjection O.

8.—The first word in every line in poetry, and also of a poetical quotation, although it may not begin a line.

9.—The first word of a direct quotation, when it is a sentence in itself.

10.—The names of the days and months, but not the four seasons.

## Words to be Omitted.

In both speaking and familiar writing the language is frequently weakened by the addition of unnecessary words, such as the following. Those in italics should be omitted. First *of all.* Last *of all.* Given away *gratis.* Continuing *on.* Cut off *of* it. He has *got* it. As soon as *ever.* Admitted *of.* Another *one.* The *latter* end. If *that* he said it. After *that* he had called. The *very* best. The *very* worst. To return *back.* To go back *again.* To retreat *back.* To restore *back.* Throughout the *whole.* Covered *over.* He said so *over* again. Sinks *down.* Ascended *up.* Rose *up.* *Equally* as well. *Equally* as good. To enter *in.* Issued *out.* Both *of* those. They *both* met. Before I do that I must *first* consider. Whenever I wish for a book, I can *always* have it. United

*together.* Combined *together.* They met (or spoke) *together*; conversed *together* (*con* means with). He may *perhaps* call. She may *probably* call (*may* implies probability). *Rather* childish, coldish, greenish, whitish, foolish (the terminating *ish* has the same meaning as *rather*).

## PUNCTUATION.

The importance of correct punctuation must not be overlooked, for without it many a sentence would be ambiguous. The practice of correct authors, however, varies, especially in the use of the lightest point, the comma. The points in common use are—

The comma ( , )  The semicolon ( ; )
The colon ( : )  The period (or full stop) ( . )
The note of interrogation ( ? )
The note of exclamation (or interjection) ( ! )
The marks of parenthesis ( )
The dash ( — )  The apostrophe ( ' )
The marks of quotation ( " " )

The pupil is strongly advised to commit to memory the few rules here given, and to go over the list of examples appended until familiar with them. For practice, let him copy from any standard work, never passing any error he may make, but paying strict attention to it, so as to avoid its repetition. Writing from dictation may then be made use of, care being taken to compare the copy with the original.

## THE COMMA.

1st. Two or more words of the same part of speech and in the same construction, if used without a conjunction, are separated by a comma; as,

"Rocks, caves, lakes, fens, bogs, dens and shades of death."

"He was a sober, honest, industrious and trustworthy man."

2nd. A comma is used before and after an explanatory or interjectional phrase or clause, that is not restrictive; as,

"We, the people of Great Britain, allow this thing."

NOTE.—By restrictive, is meant such as,

"Even the fiercest animals show affection for the keepers who are kind to them."

3rd. Words or phrases contrasted with each other require a comma between them; as,

"A poet is born, not made."

"Stern with offenders, yet his heart was kind."

4th. A comma is necessary after a nominative when the verb is omitted; as,

"Is not old wine wholesomest, old pippins toothsomest?

5th. Adverbs or adverbial phrases at the beginning of the sentence, or when they break the connection, must be separated from the context by commas; as,

"Finally, the preceding arguments may be condensed into one urgent appeal."

"You will, therefore, see the necessity."

6th. "When used as conjunctions, *however*, *now*, *then*, *too* and *indeed* are divided by commas from the context, but when, as adverbs, qualifying the words with which they are associated, the separation should not be made. This distinction will be seen from the following examples:

HOWEVER.—We must, *however*, pay some deference to the opinions of the wise *however* much they are contrary to our own.

NOW.—I have *now* shown the consistency of my principles, and, *now*, what is the fair and obvious conclusion?

THEN.—On these facts, *then*, I *then* rested my arguments.

TOO.—I found, *too*, a theatre at Alexandria; but he who would enjoy the representation, must not be *too* particular.

INDEED.—The young man was *indeed* culpable in that act, though, *indeed*, he conducted himself very well in other respects.

7th. A short, direct quotation is separated by a comma from the clause which it follows; as,

"It has often been said, 'Live and let live.'"

NOTE.—A quotation introduced by *that* is not separated from the preceding clause by any mark of punctuation.

8th. A name or word used in direct address is separated from the sentence by a comma or commas; as,

"Mr. Smith, I appeal to you."

"And you, base coward, dared to insult a woman."

9th. Proper names when inverted are separated by a comma; as,

"Jones, William."

NOTE.—The word Brothers, if used with the family name, as "Brown Brothers & Co." requires no comma; but, if Brother, or Brothers be used to denote a distinct personality, as "Brown, Brother & Co." the comma should be employed.

10th. A comma is often employed to prevent ambiguity; as,

"Twenty lamps having two wicks each consisting of 150 threads." This may mean 150 or 300 threads, depending on whether the comma is placed after or before "each."

11th. Numbers, consisting of four or more figures, excepting dates, are divided into periods of three figures each, the division being effected by commas; as,

189,246,315.

"When you are in doubt as to the propriety of inserting commas, omit them. It is better to have too few than too many."—*Quackenbos.*

## The Semicolon.

1st. "Reasons are preceded by semicolons."

*Alfred Ayres.*

Example: "I will consent to such an arrangement; for I know that it is the best that can be done at present.

2nd. A semicolon is used to separate the principal parts of a sentence, when those principal parts are themselves divisible by commas; as,

"It is our first duty to provide for those related to us; but though charity begins at home, it should not end there."

3rd. A series of expressions having a common dependence upon one clause, should be separated by the semicolon; as,

"From lightning and tempest; from plague, pestilence, and famine; from battle and murder, and from sudden death, good Lord deliver us."

4th. When clauses in opposition are linked together by *but*, *yet*, *whilst*, *notwithstanding*, or other disjunctive, the conjunction should be preceded by a semicolon; as,

"Not stones, nor wood, nor the art of artisans make a State; but where men are who know how to take care of themselves, there are cities and walls."

5th. A semicolon is put before *as*, *to wit*, *namely*, *viz.*, *i.e.*, and '*that is*,' when they introduce an example, and enumeration of particulars or an explanation; as,

"A Cadmean victory; i.e., one in which the victors suffered as much as their enemies."

6th. A semicolon is used to connect sentences which are slightly connected in sense or construction, though not directly dependent upon one another; as,

"Some are born great; some achieve greatness; and some have greatness thrust upon them."

"The Royal Navy of England hath ever been its greatest defence and ornament; it is it's ancient and natural strength.

## The Colon.

A colon is used to separate clauses, the parts of which are separated by semicolons; or in those sentences where the connection is but slight.

"A jolly place, said he, in times of old!
But something ails it now: the spot is cursed."

"By our own spirits we are defied:
We poets in our youth begin in gladness;
But thereof come in the end despondency and madness."

2nd. "When a quoted passage is brought in without any introductory remark, if short, it is generally preceded by a comma; if long, by a colon."—*Quackenbos.*

"These laws of natural philosophy are self-evident: that no two bodies can occupy the same space at the same time; that parallel lines will never meet; that action and re-action are always equal."

The colon is gradually going out of use, its place being supplied by the semicolon, comma and dash, and in some instances even by the comma.

## The Interrogation Point.

The interrogation point is put after every question.

## The Exclamation Point.

The exclamation point should be used only in those sentences, phrases or clauses which indicate strong emotion, and which require a passionate delivery; or which commence with a verb in the imperative mood, an interjection, or other part of speech having the force of an interjection; as,

"Be firm! one constant element in luck
Is genuine, solid, old Teutonic pluck!"

"Ha, ha, ha!" "Oh, dear!" "Up, guards, and at them!"

The interjections *O* and *Oh*, are frequently misused. The former is employed only in direct address, and is never followed immediately by the exclamation point. The latter is never used in address, and as an exclamation is sometimes followed directly by the exclamation point; or, when used to introduce an exclamatory sentence, a comma is placed after the *oh*, and an exclamation point at the end of the sentence; as,

"O Liberty! how many crimes are committed in thy name!"

"Oh, for the wings, the wings of a dove!"

"Oh! I cannot speak for joy."

### The Period (or Full-stop.)

1st. A period is used after every complete sentence which is not a question or an exclamation; as,

"Mankind are averse to innovations."

2nd. A period is used after all abbreviations; as

M.D. (Doctor of Medicine.) K.C.B. (Knight Commander of the Bath.)

### The Dash.

The dash is used to mark a sudden or emphatic pause. It has almost superseded the parenthesis for incidental phrases; *i.e.*, for words which could be omitted without destroying either the sense or grammatical construction; as,

"Come with me and I will show you—but no, I will spare your feelings."

"I pledge myself to this—and show me the man who dares to pledge more—that I will, etc."

### The Hyphen.

A hyphen is used to connect the parts of a compound

or derivative word, or to divide the syllables when a word is written partly on two lines; as,

"To-day." "Indi-gent."

A word should not be divided so as to leave only one letter on either line.

### Ditto Marks.

Two inverted commas are used to denote something understood which has been written in the line above.

6 lbs.
7 „

### The Caret.

The caret is used only in manuscript, and denotes the accidental omission of a word or letter which has afterwards been written above the line; as,

have
"I may ∧ been."

### The Parenthesis.

This mark has been superseded to a great extent by the dash, and by the comma. It is still in general use for brief explanation in business, legal documents, and newspaper reports, as—

"Three hundred and fifty pounds (£350)."

"The movement was merely a pretext and a sham! (Cries of Shame, oh! oh!)"

### Brackets.

Brackets are used for brief explanations inserted in or appended to quotations to make them intelligible, as—

"The numbers [of blunders] that have been imputed to him are endless."

### The Apostrophe.

The apostrophe is used to denote the omission of words or figures, as—

"Can't" "'87."

Also to denote the possessive case, and the plurals of letters and figures, as—

"The Boys' Own Paper." "The m's are not well made."

## Quotation Marks.

Quotation marks are used to enclose the *exact* words of an author or speaker, as—

As the poet says, "Trust no future, howe'er pleasant."

2. A quotation within a quotation is marked by a single inverted comma, as—

"O 'darkly, deeply, beautifully blue'
As some one somewhere sings about the sky."

Note.—When a quotation is divided into paragraphs, the inverted commas are placed *before each paragraph* and after the last.

## The Cedilla.

The cedilla is a mark placed under the letter *c*, when it has the soft sound of s, as—

"Façade."

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## Shorthand and Type-writing.

Shorthand writing and type-writing are so nearly allied that a Manual on the Type-writer would scarcely be complete without some reference to Shorthand. The two arts to a certain extent supplement each other. The Type-writer is invaluable for transcribing shorthand notes, and shorthand is equally useful to supplement the speed of the type-writer. The speed on the Type-writer is 40 to 50 words per minute, and though much higher speeds have been attained, they are exceptional. With shorthand, a speed of 80 words per minute is readily gained, and with no greater effort than a fair amount of practice, this can be increased to from 100 to 150 words per minute.

An employer can save, say, one-third of his time by dictating his letters, and having them taken down in shorthand, and then transcribed on the Type-writer. Corrections and interlineations can be more readily made in the shorthand notes than on the Type-writer, and the type-written transcript thus becomes the fair copy and not the rough draft.

Phonography, or Phonetic Shorthand, was invented by Mr Isaac Pitman in 1837, and is the only practical and universal system of shorthand. The system is capable of answering every requirement of the man of science or of business, as well as of the professional reporter. Its principles may be mastered in a few hours, and an hour's daily practice in reading and writing continued for about a month will generally ensure tolerable facility in using it.

The student is recommended to commence his study with the "Phonographic Teacher," price 6*d*, and, if he is learning without the aid of a teacher, the "Key to the Phonographic Teacher," 6*d*., and "Progressive Studies in Phonography," 1*s*. 6*d*., to be obtained through any bookseller, or from the publishers of this "Manual." (See Catalogue at the end of this book.)

The English language contains forty-one distinct sounds; the alphabet of Phonography provides a sign for each sound. The phonographic alphabet contains twenty-four consonants, twelve vowels, and five diphthongs. The vowel and diphthong signs are dots, dashes and angular marks. A dot written after a consonant at the top represents the sound of *ah*, heard in the word *pa*; so that ◦\ represents *pa*. A dot in the middle of a consonant represents the sound *eh*, heard in the word *pay*, as in the word ⌒ *may*, and at the end *ee*, as in —. *key*. So with the rest of the vowels and diphthongs. When the consonants of the Phonographic Alphabet are joined, they are written without lifting the pen. Thus, suppose we wish to write the word *gate*, we write ⌐, and

then insert the vowel *eh*, *gate*. Or if we desire to write the word *ripe*, we write , and then the diphthong *i*,  *ripe*.

The simple forms employed in the alphabet are varied by the addition of hooks and small circles, so as to express two, three, or even five letters in one stroke. Groups of consonants, such as *pr*, *pl*, *spr*, *st*, *stnd*, *strds*, in *pr*aise, *pl*ead, *spr*ing, *st*ep, *stand*, cu*strards*, are written with a single motion of the hand. Thus, a hook at the beginning of the consonant *p*, makes  *pr*, and if hooked on the other side,  *pl*, so that the words *pray* and *play* would be written *pray*,  *play*. A small circle represents *s*. It may be written between two consonants, or at the beginning or end of a consonant; thus,  *seek*,  *plays*,  *tracks*,  *risks*. A hook at the end of a consonant on one side represents *n*, and on the other side *f* or *v*, and a letter written half its usual length signifies the addition of *t* or *d*. Thus a *system of abbreviations* is furnished, which at once lessens the labor of writing, and increases the legibility of what is written.

The most frequently occurring words, *a*, *the*, *and*, *of*, *in*, *to*, etc., are represented by single characters or letters, thus  *p* represents *up*, — *k*, *come*, etc.

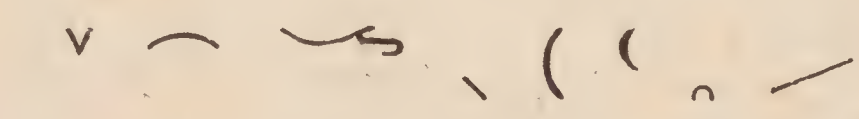
As a result of the employment of simple geometrical forms for the simple alphabet, and appended hooks and circles for double and treble letters, *words that contain the same consonants are capable of being written by differently shaped outlines*, so that they may be read and distinguished from each other *without the insertion of vowels*. This is an advantage which every reporter knows well how to appreciate.

Thus, though Phonography is to some extent, with regard to legibility; independent of a system of vowel notation, yet it can mark every distinct shade of sound with unrivalled simplicity and accuracy.

The Phonographic system is admirably adapted for

*Phraseography*, or the joining together of such little words as are of very frequent occurrence; and the outlines thus produced are not liable to be confounded with those of single words. The phrases, *I have*, *I shall be*, *I shall be able to*, *I fear you will not*, *these could not have been*, *it is quite certain that you are*, etc., are written with as many easy strokes or motions of the hand as there are words, and frequently with less; and *the whole phrase is written without lifting the pen.* It may also be observed that the composition of these signs is so simple that any phonographer who has not seen them before can immediately decipher them.

The value of phrasing will be seen in the following :—



*I am inclined to think that you are,*

lifting the pen seven times.

without lifting the pen.

There are three styles of Phonography—the Learners' style, the Corresponding style, and the Reporting style. These styles only differ from each other in the number of abbreviating principles, and contractions used.

There are exceptional facilities for learning Phonography. In addition to over 600 public and private colleges, schools, and public institutions in which the art is taught, there are private teachers, and the Phonetic Society with 3,000 members, in every part of the United Kingdom. The members of this society undertake to correct the exercises of learners free of charge. In most large towns Phonographic Associations are established which afford facilities for learning and getting up speed in Phonography, and social intercourse and improvement.

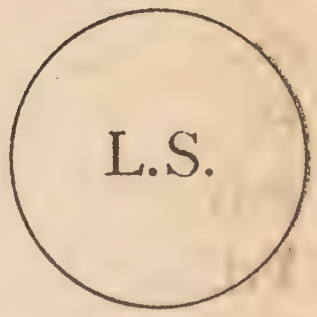
## COMMERCIAL ABBREVIATIONS.

| | |
|---|---|
| A. | Answer |
| @ | At |
| A 1. | First class |
| Abs. | Abstract |
| a/c *or* Acct. | Account |
| Acc. | Accepted |
| Ad lib. | *Ad libitum.* At pleasure. |
| A.D. | *Anno Domini.* In the Year of our Lord |
| Æ 1. | Second class |
| A.M. | *Ante meridiem.* Before noon |
| Amt. | Amount |
| Apl. | April |
| Aug. | August |
| A/V. | *Ad valorem.* According to value |
| Av. | Average ; avenue |
| Bal. | Balance |
| Bbl. | Barrel ; barrels |
| Bd. | Bond ; bound |
| B.E. | Bill of Exchange |
| Bk. | Bank ; book |
| B/L. | Bill of Lading |
| Blk. | Black |
| Br. | British |
| Brt. | Brought |
| Bx. | Box (Bxs. Boxes) |
| C. *or* Cap. | Chapter ; capital |
| C. | *Centum.* One hundred |
| Cash. | Cashier |
| C.B. | Cash Book |
| Cf. | *Confer.* Compare |
| c/o. | Care of |
| Co. | Company ; County |
| C.O.D. | Cash (*or* Collect) on Delivery |
| Col. | Colonial ; Colonel |

| | |
|---|---|
| Collr. | Collector |
| Com. | Committee |
| Comm. | Commission |
| Cr. | Credit ; creditor (Crs. Creditors) |
| Cur. | Current. This month |
| Cwt. | A hundredweight |
| d. | A penny, *or* pence (D. 500) |
| D.B. | Day Book |
| Dbt. | Debit |
| d/d. | Days after date |
| Dec. | December |
| Deld. | Delivered |
| Dept. | Department |
| Diff. | Difference |
| Dis. | Discount |
| Dist. | District |
| Div. | Division ; dividend |
| Do. | Ditto. The same |
| Doz. | Dozen |
| Dr. | Debtor ; Doctor ; Drachm (incorrect for Dear) |
| d/s. | Days after sight |
| Dwt. | Pennyweight |
| D.V. | *Deo volente.* God willing |
| Ea. | Each |
| Ed. | Editor ; edition (Eds. Editors) |
| E.E. | Errors excepted |
| E. & O.E. | Errors and omissions excepted. |
| e.g. | *Exempli gratia.* For instance |
| Eng. | England ; English |
| Entd. | Entered |
| Esq. | Esquire |
| Et al. | *Et alibi.* And elsewhere |
| Etc. *or* &c. | *Et cætera.* And so forth. |
| & | And |
| Et. seq. | And the following |
| Ex. | Example. Also "out of" |

| | |
|---|---|
| Exd. | Examined |
| Exec. *or* Exr. | Executor |
| F. *or* Fahr. | Fahrenheit. (Therm.) |
| Fcp. | Foolscap |
| Fig. | Figure |
| F.O.B. | Free on Board |
| Fol. | Folio |
| For. | Foreign |
| Fr. | French. France |
| Fri. | Friday |
| Fur. | Furlongs |
| Gal. | Gallon |
| Gaz. | Gazette |
| Gen. | General |
| Gent. | Gentleman (incorrect) |
| Gov. | Governor |
| G.P.O. | General Post Office |
| Grs. | Gross ; grains |
| Hhd. | Hogshead ; hogsheads |
| H.M.S. | Her (or His) Majesty's ship |
| Hon. | Honorable |
| H.P. | Horse-power |
| Ib. Ibid. *or* | *Ibidem.* The same. In the same place |
| Id. | *Idem.* The same |
| I.E. *or* i.e. | *Id est.* That is |
| In. | Inch *or* inches |
| Int. | Interest |
| Inst. | The current month |
| Instn. | Institution |
| Intr. | Introduction. Introducing |
| Inv. | Invoice |
| I.O.U. | I owe you |
| I.Q. | *Idem quod.* The same as |

| | |
|---|---|
| Ital. | Italic |
| Jan. | January |
| Jr. *or* Junr. | Junior |
| Jun. | June |
| Jul. | July |
| £ | One pound sterling |
| Lat. | Latitude |
| lb. | Pound |
| L.C. | Letter of credit; lower case |
| Ld. | Ledger |
| Long. | Longitude |
| L.S. | *Locus Sigilli.* Place of the seal |
| M. | 1,000; Monsieur |
| Mad. | Madam |
| Mar. | March |
| m/d. | Months after date |
| Mdlle. *or* Mlle. | (Fr.) Mademoiselle; Miss |
| Mem. | Memorandum |
| Messrs. | Messieurs |
| Met. | Metal |
| Michs. | Michaelmas |
| MM. | (Fr.) Messieurs; Sirs |
| Mo. | Months (Mos. Months) |
| Mon. | Monday |
| Mons. | (Fr.) Monsieur; Sir |
| Mr. | Mister |
| Mrs. | Mistress |
| MS. | Manuscript (MSS. manuscripts) |
| N.B. | *Nota bene.* Take note |
| N.B. | North Britain, i.e., Scotland. New Brunswick |
| Nem. con. | *Nemine contradicente.* No one contradicting or opposing. |
| No. | *Numero.* Number (Nos. Numbers) |



| | |
|---|---|
| Non. com. | *Non compos* (mentis) Insane |
| Non. sec. | *Non sequiter.* It does not follow |
| Nov. | November |
| o/a. | On account of |
| Obs. | Observe |
| Obt. *or* Obdt. | Obedient |
| Oct. | October |
| O.H.M.S. | On His (or Her) Majesty's Service |
| % | Per cent. |
| O.S. | Old style |
| oz. | Ounce (ozs. ounces) |
| P. | Page (pp. pages) |
| Par. | Paragraph |
| Pd. | Paid |
| Per ann. | By the year |
| Per cent. | By the hundred |
| P/c. | Price current |
| Per *or* ℔ | *Per.* Through; by |
| P.M. | *Post meridiem.* Afternoon |
| P.O. | Postal Order; Post Office |
| P.O.O. | Post Office Order |
| pp. *or* p. pro. *or* Per pro. | In place of. Instead of |
| Pr. | Pair |
| Pres. | President |
| Pro tem. | *Pro tempore.* For the time |
| Pro. | For |
| Prox. | Proximo. Next; of the next month |
| Ps. *or* Pcs. | Pieces |
| P.S. | *Post scriptum.* Postscript |
| Pt. | Pint |
| P.T.O. | Please turn over |

| | |
|---|---|
| Q. *or* Ques. | Question |
| Qr. | Quarter. (Q. quire. Qrs. quires ; quarters) |
| Qt. | Quart. (Qts. quarts) |
| Q.V. | *Quod vide.* Which see |
| R. | *Recipe.* Take |
| Recd. | Received |
| Ref. | Reference |
| Regd. | Registered |
| Rm. | Ream |
| Rep. | Representative |
| Rt. | Right |
| Rev. *or* Revd. | Reverend. (Revs. Plu. of Rev., *or* revolutions) |
| S. | Shilling *or* shillings |
| Sat. | Saturday |
| S.B. | Sales Book |
| Sec. *or* § | Section |
| Sec. *or* Secy. | Secretary |
| Sept. | September |
| Servt. | Servant |
| Shipt. | Shipment |
| Sig. | Signifies |
| Soc. | Society |
| Sq. *or* Sqr. | Square |
| S.S. | Steamship |
| St. | Street ; saint |
| Sun. | Sunday |
| Thurs. | Thursday |
| Treasr. | Treasurer |
| Tues. | Tuesday |
| Ult. | *Ultimo.* Of the last month. |
| V. | Five. *Vide.* see |

| | |
|---|---|
| Var. | Various |
| Viz. | *Videlicit.* Namely |
| Vol. | Volume. (Vols. volumes.) |
| Wed. | Wednesday |
| Wk. | Week |
| X. | Ten |
| Yd. | Yard. Yds. yards |
| Yr. | Year. Yrs. years (your incorrect) |

## Abbreviations of Titles and Names.

| | |
|---|---|
| A.B. | *Artium Baccalaureus.* Bachelor of Arts |
| Abp. | Archbishop |
| Adjt. | Adjutant |
| Adm. | Admiral |
| A.G. | Adjutant General |
| A.G.E. | Attorney General of England |
| Ald. | Alderman |
| A.M. | *Artium Magister.* Master of Arts. (See M.A. |
| A.M.G. | Assistant Major-General |
| A.Q.M.G. | Assistant Quarter-Master-General |
| A.R.A. | Associate of the Royal Academy |
| Archd. | Archdeacon |
| Archt. | Architect |
| A.R.S.A. | Associate of the Royal Scottish Academy |
| Att. Gen. | Attorney-General |
| Att *or* Atty. | Attorney |
| B.A. | Bachelor of Arts (See A.B.) |
| Bart. | Baronet |
| B.C.L. | Bachelor of Civil Law |
| B.D. | Bachelor of Divinity |
| B.L. | Bachelor of Laws |
| B.M. | *Baccalaureus Medicinæ.* Bachelor of Medicine |

| | |
|---|---|
| Bot. | Botanist |
| Bp. | Bishop |
| B.V.M. | Blessed Virgin Mary |
| Capt. | Captain |
| Card. | *Cardinalis.* Cardinal |
| C.B. | Companion of the Bath |
| C.C.P. | Court of Common Pleas |
| C.E. | Civil Engineer |
| C.G. | Consul General ; Coast Guard |
| Cit. | Citizen |
| C.J. | Chief Justice |
| Cl. | Clergy |
| C.M.G. | Companion of the Order of St. Michael and St. George |
| Coll. | Collector |
| Const. | Constable |
| C.P.C. | *Custos Privati Sigilli.* Keeper of the Privy Seal |
| C.S. | Court of Sessions. Keeper of the Seal |
| Cor. Mem. | Corresponding Member |
| D.A.A.G. | Deputy Assistant Adjutant-General |
| D.A.G. | Deputy Adjutant-General |
| D.C.G. | Deputy Commissary General |
| D.C.L. | Doctor of Civil (or Canon) Law |
| D.D. | *Divinitatis Doctor.* Doctor of Divinity |
| Dea. | Deacon |
| Deft. | Defendant |
| D.G. | Deputy-General |
| D.G.M. | (Masonic) Deputy Grand Master |
| Dk. | Duke |
| E.C.P. | *Evangelli Christi Prædicator.* Preacher of the Gospel of Christ |
| E.I.C. | East India Company |
| Emp. | Emperor ; Empress |
| Env. | Envoy |
| Env. Ex. | Envoy Extraordinary |

| | |
|---|---|
| Evan. | Evangelist |
| F.A.A. | Fellow of the American Academy |
| F.A.S. | *Fraternitatis Antiquariorum Socius*. Fellow of the Antiquarian Society |
| F.M. | Field Marshal |
| F.M.M.S. | Fellow of the Massachusetts Medical Society |
| F.R.C.P. | Fellow of the Royal College of Physicians |
| F.R.C.S. | Fellow of the Royal College of Surgeons |
| F.R.G.S. | Fellow of the Royal Geographical Society |
| F.R.H.S. | Fellow of the Royal Historical Society |
| F.R.S. | Fellow of the Royal Society |
| F.R.S.L. | Fellow of the Royal Society of Literature |
| G.C.B. | Grand Cross of the Bath |
| Gen. | General |
| Gov. | Governor |
| H.B.C. | Hudson's Bay Company |
| H.B.M. | Her Britannic Majesty |
| H.E.I.C. | Honorable East India Company |
| H.M. | His (or Her) Majesty |
| Hon. | Honorable |
| H.R.H. | His (or Her) Royal Highness |
| I.H.S. | *Jesus Hominum Salvator*. Jesus the Saviour of Men |
| I.N.R.I. | *Jesus Nazarenus Rex Judæorum*. Jesus of Nazareth the King of the Jews |
| J.D. | *Juris Doctor*. Doctor of Law |
| I.O.O.F. | Independent Order of Oddfellows |
| J.P. | Justice of the Peace |
| K. | King |
| K.A. | (Russian Order) Knight of St. Andrew |
| K.B. | Knight of the Bath |
| K.B.E. | (Russian Order) Knight of the Black Eagle |
| K.C. | (Turkish Order) Knight of the Crescent |
| K.C.B. | Knight Commander of the Bath [Hanover |
| K.C.H. | (Hanoverian Order) Knight Commander of |

| | |
|---|---|
| K.G. | Knight of the Garter |
| K.G.C.B. | Knight Grand Cross of the Bath |
| K.G.F. | (Spanish Order) Knight of the Golden Fleece |
| K.G.V. | (Swedish Order) Knight of Gustavus Vasa |
| K.L.H. | (French Order) Knight of the Legion of Honour |
| Knt. *or* Kt. | Knight |
| K.R.E. | (Russian Order) Knight of the Red Eagle |
| K.T. | (Scottish Order) Knight of the Thistle |
| Ld. | Lord |
| Lieut. *or* Lt. | Lieutenant |
| LL.B. | *Baccalaureus Legum.* Bachelor of Laws |
| LL.D. | *Legum Doctor.* Doctor of Laws |
| M.A. | Master of Arts (See A.M.) |
| Maj. | Major |
| M.B. | *Medicinæ Baccalaureus.* Bachelor of Medicine |
| M.B. | *Musicæ Baccalaureus.* Bachelor of Music |
| M.D. | *Medicinæ Doctor.* Doctor of Medicine |
| M.P. | Member of Parliament. Member of Police |
| M.R.A.S. | Member of the Royal Academy of Science |
| M.R.C.S. | Member of the Royal College of Surgeons |
| M.R.G.S. | Member of the Royal Geographical Society |
| Mus. D. | (Univ. Degree) Doctor of Music (also Mus. Doc.) |
| N.A. | National Academician |
| N.P. | Notary Public |
| N.S.J.C. | (Lat.) *Noster Salvator Jesus Christus.* (Fr.) Notre Seigneur Jesus Christ |
| Off. | Officer |
| O.H.M.S. | On Her (or His) Majesty's Service. |
| P.C. | Privy Council |
| Ph.D. | Doctor of Philosophy |
| P.M. | Post Master |
| P.M.G. | Post Master-General |
| Prof. | Professor |

| | |
|---|---|
| Q.M. | Quarter-Master |
| Q.M.G. | Quarter-Master-General |
| R.A. | Royal Academician |
| R.A.M. | Royal Academy of Music |
| R.E. | Royal Engineers |
| Regt. | Regiment |
| R.N. | Royal Navy |
| R.R. | Right Reverend |
| R.S.O. | Railway Sub-office |
| R.S.S. | *Regiæ Socitatis Socius.* Fellow of the Royal Society |
| Rt. Hon. | Right Honorable |
| Sen. | Senior |
| Serj. | Serjeant |
| S.Ex. | Son Excellence His Excellence |
| St. | Saint |
| S.T.D. or SS. T.D. | *Sanctæ Theologia Doctor.* Doctor of Sacred Theology |
| S.T.M. | *Sanctae Theologia Magister.* Master of Theology |
| S.S.P. | *Sacra Sanctæ Theologia.* Professor of Theology |
| U.E.I.C. | United East India Company |
| Univ. | University |
| U.S.A. | United States Army *or* United States of America |
| U.S.C. | United Service Club |
| U.S.N. | United States Navy |
| V.A. | Vicar Apostolic |
| V.G. | (Eccles.) Vicar-General |
| V.R. | Victoria Regina. Victoria, the Queen |
| V.R.I. | Victoria Regina Imperatrix. Victoria, Queen and Empress |
| Xt. | Christ |
| Y.M.C.A. | Young Men's Christian Association |

## GEOGRAPHICAL ABBREVIATIONS. (ENGLAND.)

| | | | |
|---|---|---|---|
| B'ham. | Birmingham | Oxon. | Oxfordshire |
| M'chester. | Manchester | Yorks. | Yorkshire |
| L'pool. | Liverpool | Lancs. | Lancashire |
| W'chester. | Winchester | Staffs. | Staffordshire |
| Notts. | Nottinghamshire | Bucks. | Buckingham-shire |
| Salop. | Shropshire. | | |
| Hants. | Hampshire | Berks. | Berkshire |
| Hunts. | Huntingdonshire | Norths. | Northampton-shire |
| Beds. | Bedfordshire | | |
| Midx. | Middlesex | Herts. | Hertfordshire |

The above are in fairly general use, but none are officially recognised.

## (OFFICIAL) GEOGRAPHICAL ABBREVIATIONS. (U.S.)

| | | | |
|---|---|---|---|
| Ala. | Alabama | Mo. | Missouri |
| Ariz. | Arizona | Mont. | Montana |
| Ark. | Arkansas | N.C. | North Carolina |
| Balt. | Baltimore | Neb. | Nebraska |
| Cal. | California | Nev. | Nevada |
| Col. | Colorado | N.H. | New Hampshire |
| Conn. or Ct. | Connecticut | N.J. | New Jersey |
| | | N. Mex. | New Mexico |
| Dak. | Dakota | N.Y. | New York |
| D.C. | District of Columbia | O. | Ohio |
| | | Or. *or* Oreg. | Oregon |
| Del. | Delaware | | |
| E. Fla. | East Florida | Pa. *or* Penn. | Pennsylvania |
| E. Tenn. | East Tennesee | | |
| Fla. | Florida | Phila. | Philadelphia |
| Ga. | Georgia | R.I. | Rhode Island |
| Ia. | Iowa | S.C. | South Carolina |
| Ill. | Illinois | Tenn. | Tennesee |
| Ind. | Indiana | Tex. | Texas |

| | | | |
|---|---|---|---|
| Ind. T. *or* I.T. | Indian Territory | U.S. | United States. (America) |
| Kan. | Kansas | U.S.A. | United States of America |
| Ky. | Kentucky | | |
| La. | Louisiana | U.T. | Utah Territory |
| Mass. | Massachusetts | Va. | Virginia |
| Md. | Maryland | Wis. | Wisconsin |
| Me. | Maine | W. T. | Washington Territory |
| Mich. | Michigan | | |
| Minn. | Minnesota | W. Va. | West Virginia |
| Miss. | Mississippi | Wyo. | Wyoming |

# INDEX.

*A hyphen after a figure signifies that the subject is continued in subsequent pages.*


| | PAGE. |
|---|---|
| Accuracy, necessity of, | 12 |
| Aligning | 97- |
| Apostrophe, the | 116- |
| Attachments | 80- |
| Backing-sheet | 28 |
| "Bell-ringer" | 24 |
| Bill, form of | 54 |
| Bill of exchange, foreign, form of | 54 |
| Bill of lading, form of | 53 |
| Borders and ornamental designs | 70 |
| Brackets | 116 |
| Business forms | 50- |
| Business-letters | 38- |
| Capitals, how obtained | 30- |
| Capitals higher or lower than the small letters, cause of | 96- |
| Capitals, when used | 109 |
| Caret, the | 116 |
| "Carriage-lever" | 25 |
| "Carriage tension" | 22 |
| Carriage will not move, cause of | 94- |
| Cedilla, the | 117 |
| Characters, extra | 71- |
| Classes of Type-writer operators | 11- |
| Colon, the | 114 |
| Comma, the | 110- |
| Commercial abbreviations | 121- |
| "Connecting-wire" | 17 |
| Construction of the Type-writer | 17- |
| Corrections | 72- |
| Dash, the | 115 |
| Description of Type-writer | 17- |
| Display work | 40- 47- |
| Ditto marks | 116 |
| "Dogs, the," and how to adjust them | 91- |
| Dramatic work | 56- |
| Drop cabinet | 82- |
| Dropped letters | 32-, 34 |
| Duplicating processes | 76- |
| Dust, to remove | 88- |
| Envelopes, addressing | 64- |
| Envelope guides | 82 |
| Extra characters | 71- |
| "Feed-roll" | 18 |
| Fingering | 30, 32- |
| "Friction-roll" | 19 |
| General lessons on the Type-writer | 17- |
| Geographical abbreviations | 132- |
| History of the Type-writer | 8- |
| Hyphen, the | 115- |
| Interrogation point, the | 114- |
| Introduction | 7- |
| Keyboards of Type-writers. | 29 |
| Key tension | 90- |
| Keys, arrangement of the | 28- |
| Knee-shift | 81 |
| Lateral ribbon movement | 26 |
| Letters writing over one another, cause of | 95- |
| "Line-space-pawl" | 25 |
| Lines regulating distance between | 25 |
| "Loose-dog" | 23 |
| "Loose-dog-stop" | 92 |
| Manifolding | 74- |
| Margin, to regulate the | 50- |

| | PAGE. |
|---|---|
| Matter to be typed, variety of | 14 |
| Necessity of the Type-writer | 8 |
| Oiling the Type-writer | 88- |
| Paper | 71 |
| Paper does not run straight, cause of | 94 |
| "Paper-shelf" | 18 |
| Paper-stop | 81- |
| Parenthesis, the | 116 |
| Period, the | 115 |
| Position when using the Type-writer | 27 |
| Preface | 5- |
| Prefixes, fingering of | 44- |
| Prescription, form of | 54 |
| Press copies | 74 |
| Promissory note, form of | 52 |
| Punctuation | 110- |
| Qualifications necessary to become a skilful operator. | 11- |
| Quotation marks | 117 |
| "Rack, the" | 23 |
| Rate of longhand writing | 10 |
| Remington No. 1 | 15- |
| Remington No. 2 | 15- |
| Remington No. 3 | 15-, 83- |
| Remington No. 4 | 15- |
| Reticence in business matters, need of | 13 |
| Ribbon reversing, movement of | 25- |
| Ribbon winder | 78- |
| Ribbons | 77- |
| "Rigid dog" | 23 |
| Rubber-bands | 79- |
| Rules for spelling | 101- |
| Scale, tabular | 65- |
| Semicolon, the | 113 |
| Shorthand and Type-writing | 117- |
| "Space-bar" | 18, 33- |
| "Space-gauge" | 25 |
| Spacing mechanism | 20- |
| "Spacing-rocker" | 23 |
| Spelling | 100- |
| Spelling, rules for | 101- |
| Suffixes, fingering of | 45- |
| Tabular work | 65- |
| Tabular scale, the | 65- |
| Tension, to regulate the | 90- |
| "Thumb-piece" | 24 |
| Titles and names, abbreviations of | 127- |
| Touch | 27- |
| Travelling case, leather | 83 |
| Type, to clean | 88 |
| Type-writer, the, care in using | 93 |
| Type-writer, care of the | 87- |
| Type-writer, rationale of the | 17- |
| Type-writer, repairing the | 93- |
| Type-writer, speed on the | 10- |
| Type-written matter, fading of | 77 |
| Underscore, the | 46- |
| "Universal bar" | 22 |
| Upper-case, the | 30- |
| Various machines and their adaptability to certain work | 15- |
| Will, form of | 55 |
| Women and Type-writing | 9- |
| Word counter, automatic | 82 |
| Word exercises | 34- |
| Words of similar pronunciation frequently misspelled | 103- |
| Words to be omitted | 109- |
| Yokes, the | 95 |

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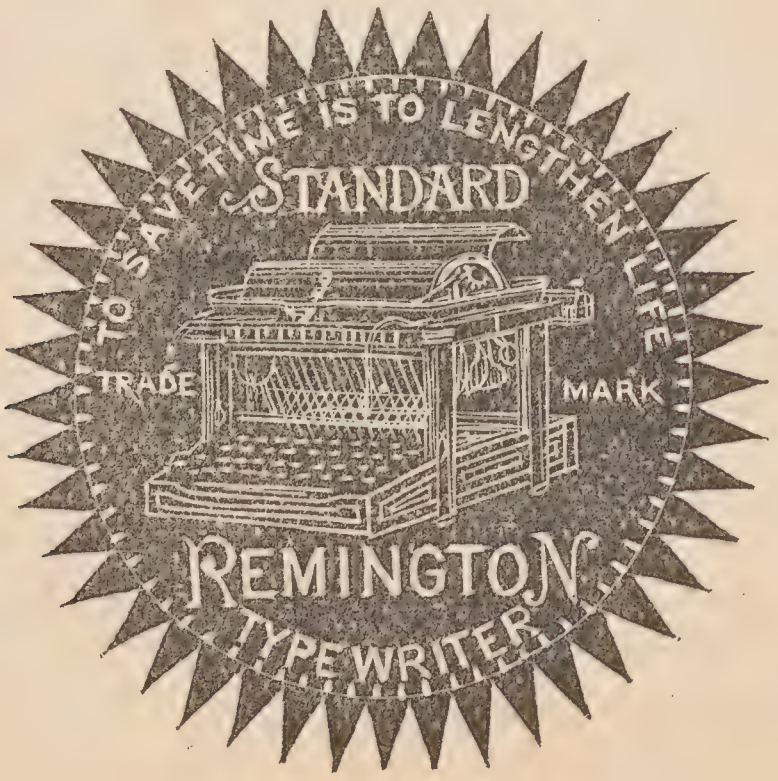

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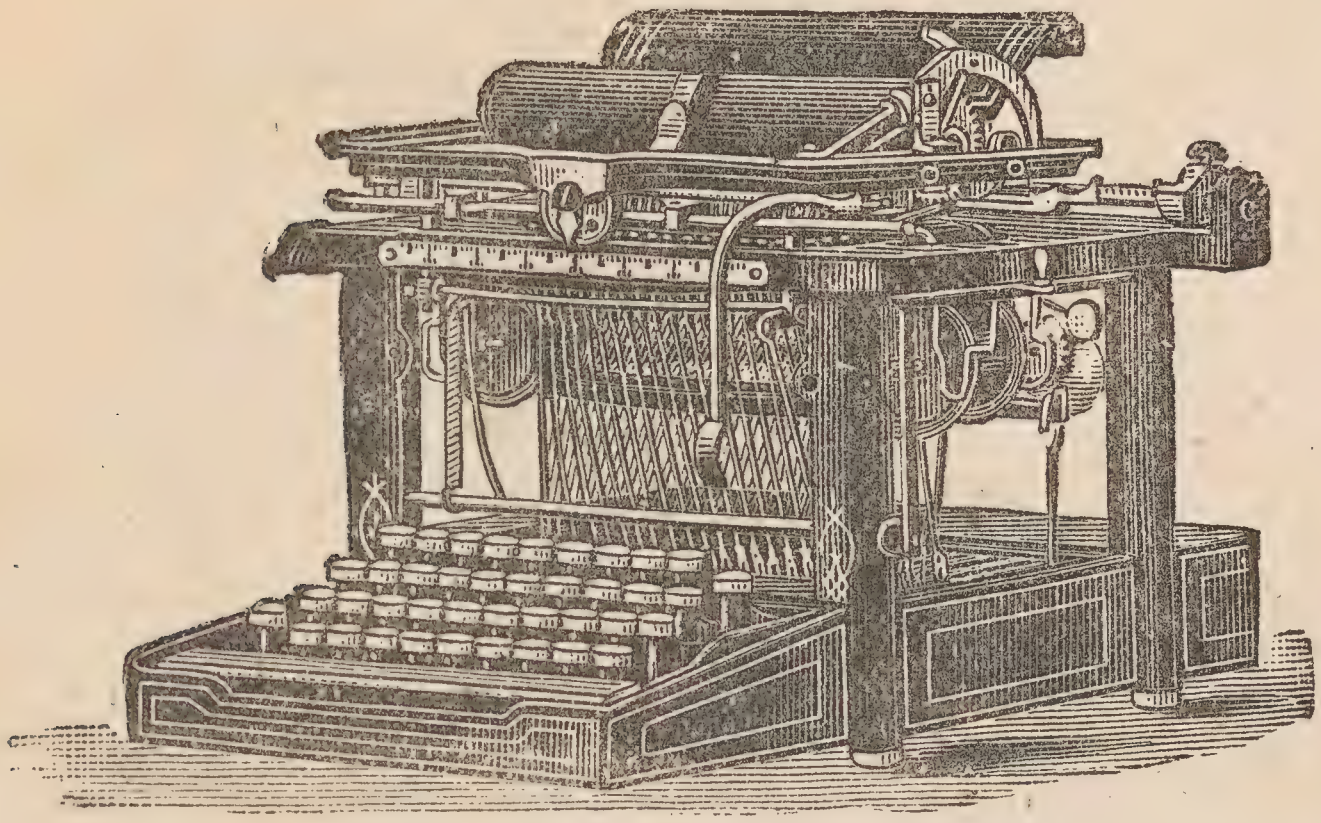

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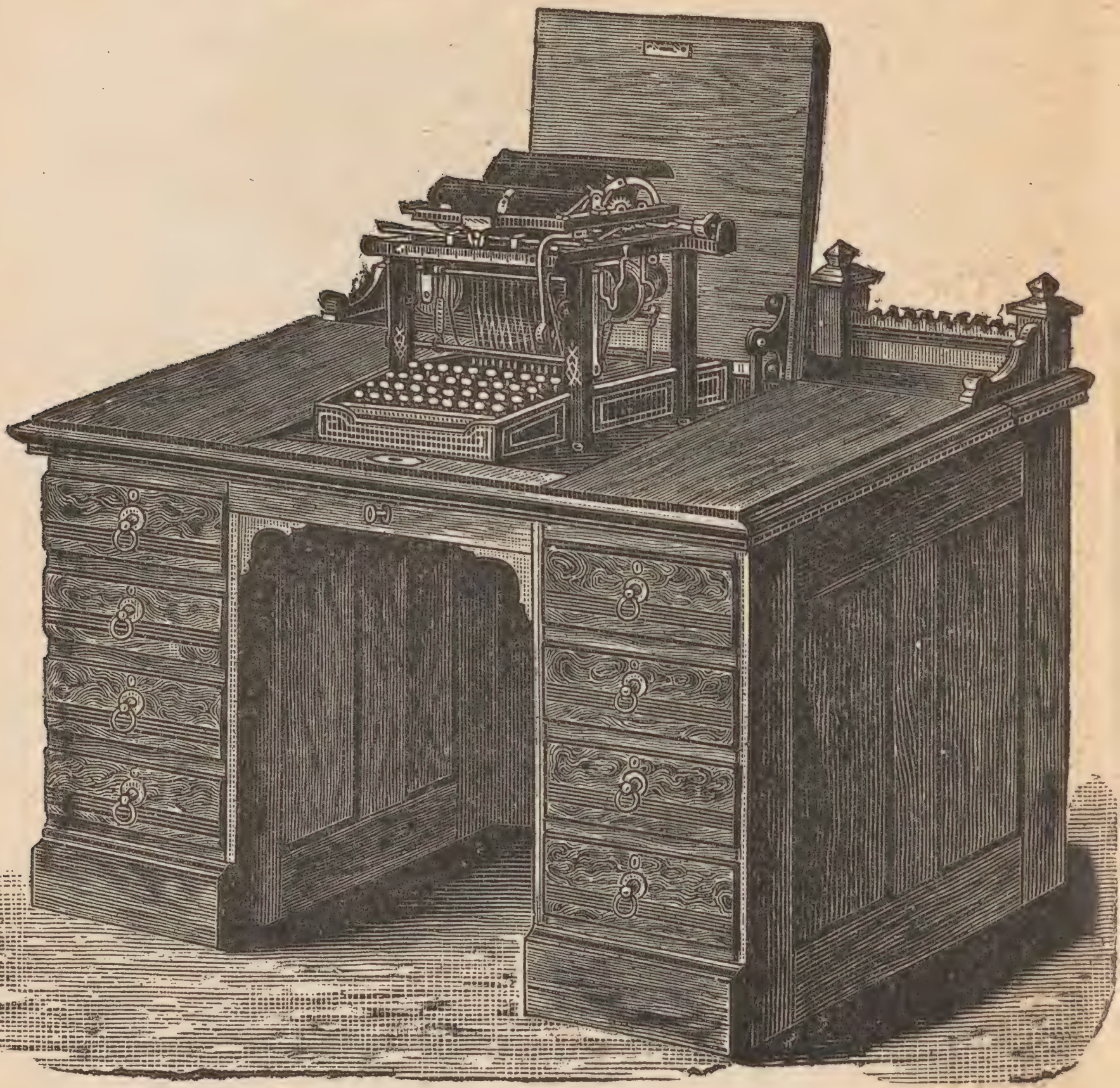

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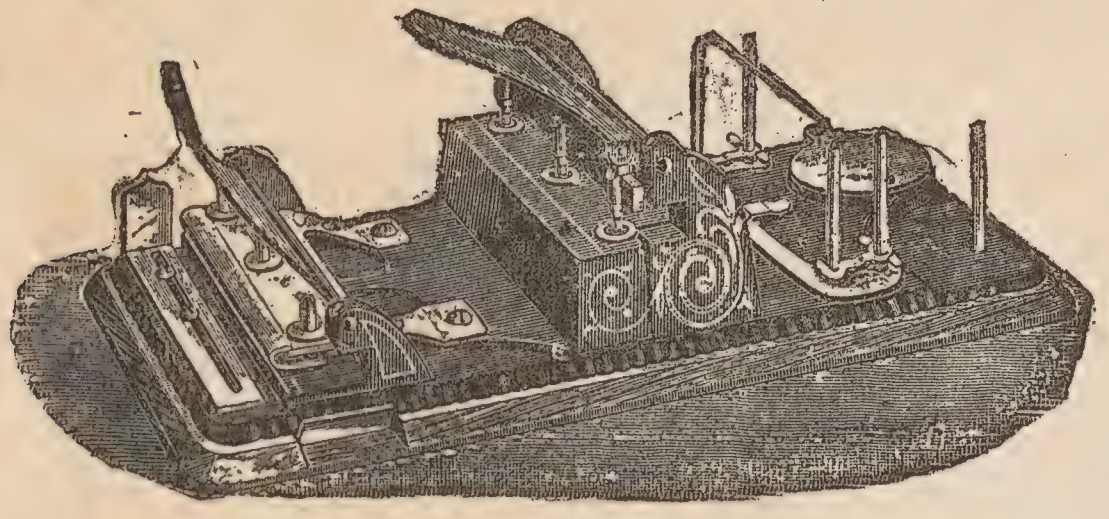

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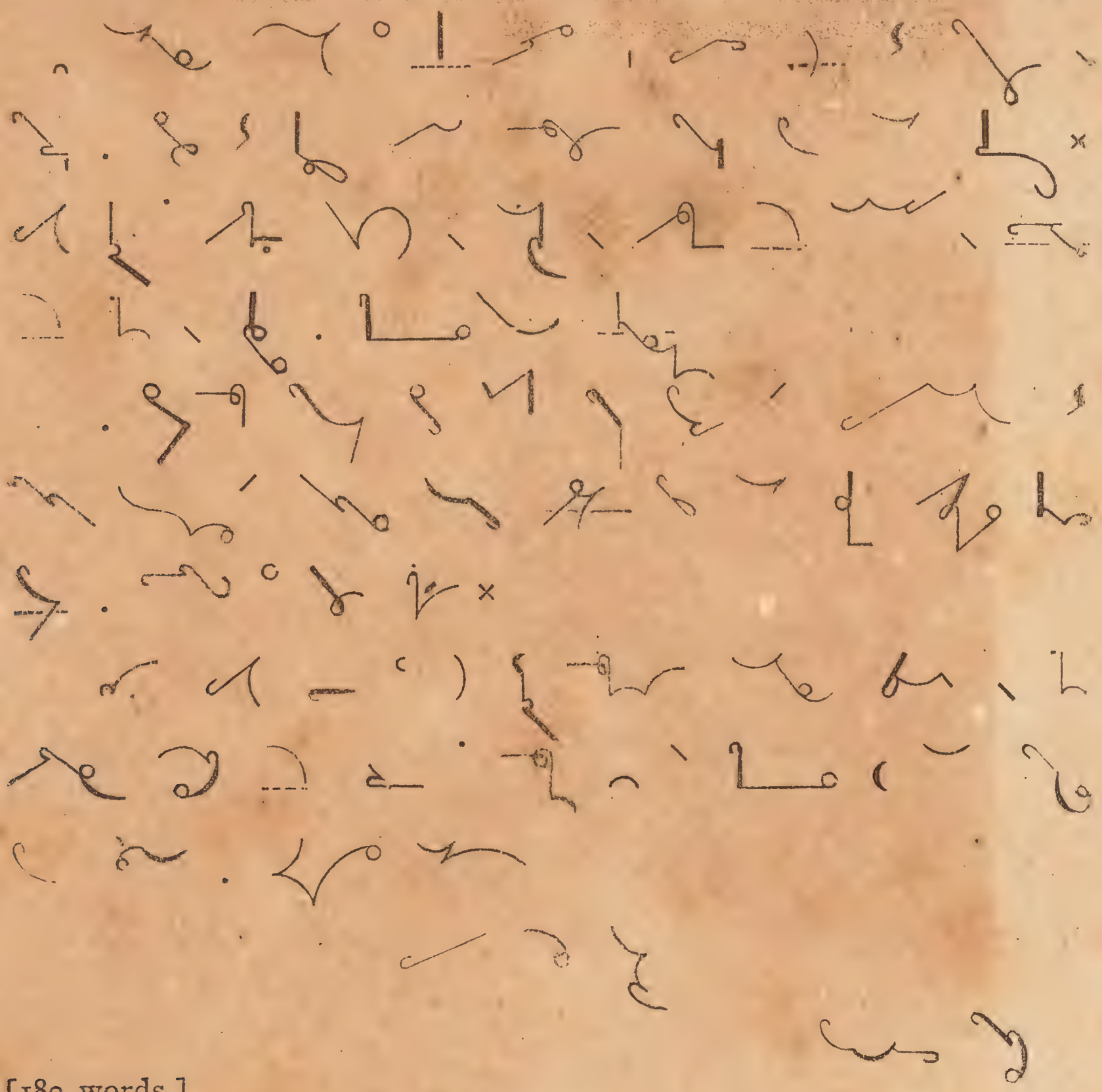

[180 words.]

TRANSLATION.

Cambridge, 24th October, 1885.

Dear Sir,

We regret having again to trouble you with reference to the restrictions which we think have been improperly placed upon the increase of proprietary rights, to which our correspondence with you in the present month has had reference, but we cannot see that the proposal should preclude the supposition that the depositors are not expressly provided for in the declaration. We think it would be a retrograde policy to endeavor to restrict or in any way to cripple or attempt to displace the directors of the Company at the present time.

The subject of the Exeter branch has been already brought forward, and we are informed that the proper forms and papers have been recently placed in the District Registrar's Department, over which the corporation has absolute control.

You will, we think, agree with us that it would be extremely unpleasant just now to attempt repressive measures or to call an extraordinary meeting of directors without any provisions for consulting the shareholders in the matter.

We are, yours faithfully,

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